

FISCAL YEAR 2021

Unified Planning Work Program

55 YEARS OF SERVICE
SERVING THE PHILADELPHIA, CAMDEN, TRENTON, METROPOLITAN AREAS

JUNE 2020





The Delaware Valley Regional Planning Commission is the federally designated Metropolitan Planning Organization for a diverse nine-county region in two states: Bucks, Chester, Delaware, Montgomery, and Philadelphia in Pennsylvania; and Burlington, Camden, Gloucester, and Mercer in New Jersey.



DVRPC's vision for the Greater Philadelphia Region is a prosperous, innovative, equitable, resilient, and sustainable region that increases mobility choices by investing in a safe and modern transportation system; that protects and preserves our natural resources while creating healthy communities; and that fosters greater opportunities for all.

DVRPC's mission is to achieve this vision by convening the widest array of partners to inform and facilitate data-driven decision-making. We are engaged across the region, and strive to be leaders and innovators, exploring new ideas and creating best practices.

TITLE VI COMPLIANCE | DVRPC fully complies with Title VI of the Civil Rights Act of 1964, the Civil Rights Restoration Act of 1987, Executive Order 12898 on Environmental Justice, and related nondiscrimination mandates in all programs and activities. DVRPC's website, www.dvrpc.org, may be translated into multiple languages. Publications and other public documents can usually be made available in alternative languages and formats, if requested. DVRPC's public meetings are always held in ADA-accessible facilities, and held in transit-accessible locations whenever possible. Translation, interpretation, or other auxiliary services can be provided to individuals who submit a request at least seven days prior to a public meeting. Translation and interpretation services for DVRPC's projects, products, and planning processes are available, generally free of charge, by calling (215) 592-1800. All requests will be accommodated to the greatest extent possible. Any person who believes they have been aggrieved by an unlawful discriminatory practice by DVRPC under Title VI has a right to file a formal complaint. Any such complaint must be in writing and filed with DVRPC's Title VI Compliance Manager and/or the appropriate state or federal agency within 180 days of the alleged discriminatory occurrence. For more information on DVRPC's Title VI program or to obtain a Title VI Complaint Form, please visit: www.dvrpc.org/GetInvolved/TitleVI, call (215) 592-1800, or email public_affairs@dvrpc.org.

DVRPC is funded through a variety of funding sources including federal grants from the U.S. Department of Transportation's Federal Highway Administration (FHWA) and Federal Transit Administration (FTA), the Pennsylvania and New Jersey departments of transportation, as well as by DVRPC's state and local member governments. The authors, however, are solely responsible for the findings and conclusions herein, which may not represent the official views or policies of the funding agencies.

FY 2021

Unified Planning Work Program

DVRPC MEMBER GOVERNMENTS

COMMONWEALTH OF PENNSYLVANIA

STATE OF NEW JERSEY

PENNSYLVANIA DEPARTMENT OF TRANSPORTATION

NEW JERSEY DEPARTMENT OF TRANSPORTATION

PENNSYLVANIA GOVERNOR'S POLICY OFFICE

NEW JERSEY DEPARTMENT OF COMMUNITY AFFAIRS

BUCKS COUNTY

BURLINGTON COUNTY

CHESTER COUNTY

CAMDEN COUNTY

DELAWARE COUNTY

GLOUCESTER COUNTY

MONTGOMERY COUNTY

MERCER COUNTY

CITY OF CHESTER

CITY OF CAMDEN

CITY OF PHILADELPHIA

CITY OF TRENTON



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June 23, 2020

On behalf of the Delaware Valley Regional Planning Commission (DVRPC), we are pleased to present the Fiscal Year 2021 Unified Planning Work Program (UPWP) as adopted by the DVRPC Board on January 23, 2020.

This document details work to be completed by DVRPC and our member governments during FY 2021, which runs from July 1, 2020 through June 30, 2021. As the federally designated Metropolitan Planning Organization for the Greater Philadelphia Metropolitan Area, DVRPC has the responsibility to undertake a performance-based planning and programming approach to making investments in our transportation system. DVRPC achieves this approach by following the direction and guidance provided by the federal FAST (Fixing America's Surface Transportation) Act and the Clean Air Act Amendments (CAAA), as well as undertaking the region's priority planning initiatives as identified by the DVRPC Board.

The planning activities identified in the FY 2021 UPWP allow DVRPC to address a variety of issues in our diverse region. Key issues for the Commission in FY 2021 include providing for the safety and resiliency of the region's transportation infrastructure; increasing the efficiency and operations of our roads and transit system; strengthening and measuring the performance of our transportation assets; promoting growth and revitalization in our older communities; protecting our air, land, and water resources; and continuing to support programs that will integrate transportation, land use, the environment, economic development, and social equity. A continuing priority for the Commission in FY 2021 is the enhanced engagement with our stakeholders and general public on the development of an update to our long-range plan, the *Connections 2045 Plan for Greater Philadelphia*.

The Commission believes that the FY 2021 work program responds to changing planning and critical issues identified by the leadership and citizens of the region, and will continue to lead the way toward a brighter future. Your comments and suggestions are invited.



Sean Thompson
Board Chair



Barry Seymour
Executive Director

RESOLUTION

by the Board of the Delaware Valley Regional Planning Commission

**ADOPTION OF THE
DELAWARE VALLEY REGIONAL PLANNING COMMISSION
FISCAL YEAR 2021 UNIFIED PLANNING WORK PROGRAM**

BE IT RESOLVED, that the Board of the Delaware Valley Regional Planning Commission (DVRPC):

1. Approves and adopts the Fiscal Year 2021 Unified Planning Work Program (UPWP), consisting of the Regular DVRPC Planning Work Program, the Supportive Regional Highway Planning Program and the Transit Support Program, as recommended by the Board Work Program Committee; and
2. Approves the actions to amend or modify the FY 2020 TIP for New Jersey and the FY 2019 TIP for Pennsylvania as required.
3. Authorizes and directs Barry Seymour, Executive Director, to negotiate the final details of the Board approved and adopted Fiscal Year 2021 UPWP with appropriate funding agencies; to prepare and file the required applications; to negotiate, execute, and/or delegate the negotiation and execution of the necessary contracts, grant agreements, and/or modifications thereto, on behalf of the DVRPC with and in the form required by a local government, operating agency, state agency, or Federal agency to aid in financing the work described in the approved and adopted Fiscal Year 2021 UPWP; and
4. Authorizes and directs Barry Seymour, Executive Director, to execute and file with such applications, contracts and agreements, such assurances as may be required or any other document concerning compliance with Title VI of the Civil Rights Act of 1964 and all other pertinent directives and requirements thereunder; and
5. Authorizes and directs Barry Seymour, Executive Director, to set forth and execute Disadvantaged Business Enterprise policies and establish and administer procedures as may be required to ensure utilization of disadvantaged businesses to the maximum extent feasible in connection with the procurement needs of the projects described in the adopted Fiscal Year 2021 UPWP; and

6. Designates Barry Seymour, Executive Director, as the authorized representative of the Commission, to provide such additional information, documents and certifications as may be required in connection with all matters pertaining to any application, grant agreement or project contained in the Fiscal Year 2021 UPWP; and
7. Authorizes and directs Renee Wise, Recording Secretary, and/or her delegate to impress the official seal of the Commission and attest same on all documents as may be required.

Adopted this 23rd day of January, 2020
by the Board of the Delaware Valley
Regional Planning Commission.

I certify that this is a true and correct copy of Resolution No. B-FY20-004.



Renee Wise, Recording Secretary

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PHOTO BY MILES OWEN

CHAPTER 1

Introduction

JUNE 2020

DELAWARE VALLEY
dvrpc
REGIONAL
PLANNING COMMISSION

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Delaware Valley Regional Planning Commission FY 2021 Unified Planning Work Program

Introduction

The FY 2021 Unified Planning Work Program (UPWP) for the Delaware Valley Regional Planning Commission (DVRPC) incorporates the planning programs and support activities of DVRPC and its member governments for the period July 1, 2020 through June 30, 2021. A Unified Planning Work Program (UPWP) is developed annually by the DVRPC Board with its planning partners to reflect the region's short-range planning needs.

Federal laws and regulations require the formation of a metropolitan planning organization (MPO) for each urbanized area with a population of more than 50,000. The MPO designated for each urbanized area is obliged to carry out a continuing, cooperative and comprehensive, performance-based, multi-modal transportation planning process. For MPOs such as DVRPC with a population greater than 200,000, a designation of Transportation Management Area is assigned. This designation brings with it additional planning requirements. The Delaware Valley Regional Planning Commission (DVRPC) is the federally-designated TMA MPO for the nine-county metropolitan region that includes Bucks, Chester, Delaware, and Montgomery counties and the City of Philadelphia in Pennsylvania, and Burlington, Camden, Gloucester, and Mercer counties in New Jersey.



The federal laws and regulations that require the formation of MPOs also provide for the formula allocation of federal funds to support the required planning activities of the MPOs. These federal regulations require an MPO to document the metropolitan transportation planning activities performed with funds provided under title 23 U.S.C. in a unified planning work program (UPWP). Each MPO, in cooperation with the State(s) and public transportation operator(s), shall develop a UPWP that includes a discussion of the planning priorities facing the MPO.

In addition to its formula funds, DVRPC is fortunate to receive other federal, state, local, foundation, and private funds to conduct a robust and comprehensive slate of regional planning activities. It is this full complement of financial resources that provides the support for the priority planning activities proposed by our member governments and stakeholders and spelled out in this FY 2021 Unified Planning Work Program.

Planning Priorities Facing the Region

The metropolitan planning regulations promulgated through the FAST (Fixing America's Surface Transportation) Act stipulate that each MPO shall develop a UPWP that includes a discussion of the planning priorities facing the metropolitan area. The planning priorities facing the DVRPC region are easily identified by looking at the annual requests for new planning projects as submitted by the DVRPC Board and other stakeholders during the UPWP development process. Many of the requests for planning studies to be included in the FY 2021 Work Program focused on the following topics: improving access to transit, Transportation Systems Management and Operations, bicycle and pedestrian infrastructure improvements, transportation/land use connections, freight planning, and the collection of transportation data to enable data-driven analyses. These planning priorities track closely with the FAST Act Planning Factors as well as the State DOT's emphasis areas.

UPWP Development Process

DVRPC staff initiates the development process in the August/September time period as initial individual coordination meetings are scheduled with the member governments, state DOT's and transit operators. These coordination meetings are a helpful way for the partners to begin thinking about their potential project ideas and how those ideas relate to current projects or other emerging planning issues. Partners are encouraged to consider ideas of a regional nature in addition to ideas for planning studies that address localized issues. Throughout September and mid-October, staff works with our partners to refine and submit brief write-ups of their project ideas considering emerging local and regional priorities as well as continuation of ongoing priority projects. At a Board Work Program Committee meeting in October, project ideas are presented by the partners and priority projects are short-listed for initial selection. During November, staff works with the partners to refine the scopes of the selected projects as they consider potential sources and amounts of funding. In early December, the Draft UPWP document is presented at the Board Meeting. The Board is requested to approve the release of the document for public comment. The public comment period remains open for 30 days; during which time, DVRPC staff prepares a response to all comments submitted by our partners, advocacy organizations, or the general public. Staff presents the comments, responses and final document to the Board for adoption at the January Board meeting. Following Board adoption, staff incorporates responses to comments, editorial corrections, and final funding tables into a final document that is submitted to our funding agencies in March. Work on the adopted UPWP begins on July first.

UPWP Document Organization

The FY 2021 Unified Planning Work Program is divided into five chapters. Chapter One serves as an introduction to DVRPC's operations and relationships to other transportation and planning organizations in the Delaware Valley region. Chapter Two provides details of the Program Areas and Projects which DVRPC will be undertaking during FY 2021. Chapters Three and Four contain the Supportive Regional Highway Planning Program (SRHPP) and the Transit Support Program (TSP),

respectively. These programs provide funding from DVRPC for our member governments and transit operating agencies to support their participation in the regional planning process. Chapter Five includes other projects funded through the UPWP to be carried out by member governments. Appendix A contains a list of acronyms commonly used in DVRPC's regional planning process.

Within the framework of available financial and human resources, this work program effectively addresses the key regional transportation and land use issues facing the Delaware Valley. The program, however, is dynamic in nature and may be modified to respond to any emerging priority issue or special need vital to the orderly growth and development of the Delaware Valley. Throughout the fiscal year, new projects and funding may be added to this Unified Planning Work Program through an amendment process which would require an approval by the DVRPC Board.

Planning Emphasis Areas

The products produced through this UPWP include technical analyses, policy recommendations, and planning services for member state and local governments. The Program Areas and Projects outlined in this document are directed by priority Planning Emphasis Areas as identified by our federal and state partners. Planning activities identified in this document strive to incorporate the requirements of the most recent federal surface transportation legislation, FAST Act, where applicable.

Examples of these Planning Emphasis Areas as identified by our state and federal partners include the following:

- Continue to collaborate with state DOTs and federal partners to implement provisions of the FAST Act including Performance Measure Targets and freight provisions.
- Continue to support greater coordination with other MPOs, state DOTs, transit agencies, TMAs and counties in mobility and land use planning. This can include Regional Models of Cooperation like the Central Jersey Transportation Forum, grant or technical assistance programs to encourage vibrant, sustainable communities, and developing and maintaining data bases in support of smart growth, and other related activities.
- Implement actions that support Ladders of Opportunity through fairness and improved coordination of services, access and mobility for low income, minority, persons with disabilities and seniors.
- Pursue congestion relief strategies such as Transportation Demand Management (TDM) strategies and low-cost operational improvements at intersections and bottlenecks.
- Implement actions to assist the DOTs with data collection such as Model Inventory of Roadway Elements (MIRE) on county and local roads and data on local-owned road and bridge assets.
- Collect and submit traffic counts to state DOTs.

- Where possible, support the collection of bicycle and pedestrian volume data on county roadways
- Provide opportunities to develop and complete the East Coast Greenway and Circuit Trails network
- Verify and update roadway inventory and performance measures on Highway Performance Monitoring System (HPMS) sample sections.
- Coordinate with state DOTs in the development and integration of standards and measures necessary to meet a performance based approach to Asset Management and to implement the Capital Investment Strategy.
- Participate in data-driven safety planning activities.
- Improve primary freight corridors and hubs for more efficient access and improved system performance.
- Enhance the visibility and effectiveness of freight planning and support the improvement of intermodal freight connectors.
- Maximize opportunities for Complete Streets implementation.
- Refine local project prioritization processes to include scoring factors that are based on potential health outcomes, safety improvements, connectivity for all modes, proximity to schools and transit stops, and other factors.
- Improve traffic operations through Intelligent Transportation System (ITS) upgrades and enhanced coordination at the interstate, state, county and local level.
- Work with state DOTs and other partners on risk management strategies for improving the resilience of transportation infrastructure against the impacts of extreme weather.
- In partnership with NJDOT's Complete Team, institutionalize an improved process for initiating mobility improvements with an updated, coordinated and streamlined approach to developing and vetting problem statements.
- Implement actions to assist NJ DOT Division of Local Aid and Economic Development in expanding outreach and assistance to local public agencies to foster improved project delivery and compliance with federal regulations.
- Continue to engage with the public to strengthen public confidence and participation in the planning process through the use of web tools/technology, social media, outreach, education and public forums/meetings.
- Update and maintain the region's Long-Range Plan, TIP, Congestion Management Process, and Travel Demand Model and work with NJ DOT and NJ TRANSIT in the development of the Statewide Long-Range Transportation Plan.

- Partner with PennDOT to market and manage PennDOT’s Local Technical Assistance Program (LTAP) in District 6.
- Work to incorporate automated/connected/electric/shared use vehicles into the planning process, recognizing the challenges, opportunities, and uncertainty associated with these technologies.
- Implement actions that uphold fairness and improved coordination of services, access, and mobility for low income and minority populations, persons with disabilities, and senior citizens.
- Work with willing county and municipal partners for integration of transportation and land use to promote community livability and maximize the efficiency of the transportation system.

Federal Legislation Requirements

As the federally designated metropolitan planning organization for the region, DVRPC must respond to the planning requirements of two federal laws: the FAST Act and the Clean Air Act Amendments of 1990 (CAAA). The FAST Act, adopted in December 2015, continues many of the regional transportation planning programs advanced in MAP-21 and many of the Program Areas and Projects set forth in this UPWP work directly to continue the implementation of those MAP-21 Programs.

The FAST Act authorized \$305 billion in federal highway, transit, safety and rail programs for five years. Under this legislation, the MPO is a partner in the planning for the use of all federal transportation funds allocated within their region. The FAST Act also requires the MPO to produce and oversee a Transportation Improvement Program (TIP), the region's short-range capital investment plan, which must be consistent with and serve to implement the region’s Long-Range Plan. The TIP prioritizes the Delaware Valley's transportation-related projects within the constraints of federal funding that our Pennsylvania and New Jersey counties can reasonably expect to receive within four years.

The Metropolitan Planning Regulations promulgated from the FAST Act identify ten planning factors that must be considered in the metropolitan planning process. The ten planning factors listed below are integrated within the tasks of the Program Areas and Projects detailed in Chapter Two of this Unified Planning Work Program.

- Support the **economic vitality** of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
- Increase the **safety** of the transportation system for motorized and non- motorized users.
- Increase the **security** of the transportation system for motorized and non- motorized users.

- Increase **accessibility and mobility** of people and freight.
- Protect and enhance the **environment**, promote **energy conservation**, improve the **quality of life**, and promote **consistency** between transportation improvements and State and local planned growth and economic development patterns.
- Enhance the **integration and connectivity** of the transportation system, across and between modes, for people and freight.
- Promote efficient **system management and operation**.
- Emphasize the **preservation** of the existing transportation system.
- Improve the **resiliency and reliability** of the transportation system and reduce or mitigate stormwater impacts of surface transportation.
- Enhance **travel and tourism**.

The Metropolitan Planning Regulations also require that MPO's with a population over 200,000 must undergo a certification review conducted jointly by the Federal Highway Administration and the Federal Transit Administration at least every four years to determine if their metropolitan transportation planning process meets the federal planning requirements. Federal certification of the planning process is a prerequisite to the approval of federal funding for transportation projects in their area. DVRPC underwent the site-visit portion of the review in October 2018 and received the Final Certification Review Report in February 2019. With the preparation and distribution of the Final Report, the FHWA and FTA certified DVRPC's metropolitan transportation planning process including DVRPC's successful actions to address one corrective action.

The requirements of the Clean Air Act Amendments (CAAA) establish a program and set a timetable for improving the nation's air quality. The Philadelphia area has been classified as a non-attainment area for ground-level ozone and portions of the region are in non-attainment and/or maintenance of the fine particulate matter standards. The region must attain or continue to maintain the mandated air quality standards for these factors. Although the responsibility for attaining the standards falls directly on the states, DVRPC is responsible for a key role in developing many of the programs relating to air quality attainment or maintenance. The projects in the region's TIP and the Long-Range Plan must conform to the states' air quality implementation plans. These projects must not lead to any further violation of the federal clean air standards or impede the region's progress toward meeting those standards.

Coordination with Member Governments and Other Planning Partners

The priority planning activities listed in DVRPC's annual Unified Planning Work Program are also defined in part by the planning needs of the city and county member governments. The member governments' financial contribution to a Comprehensive Planning fund enables DVRPC to provide a local match to other federal, state, or private funds to undertake projects of regional significance

that require a local contribution. Comprehensive Planning funds also support initiatives such as open space and environmental planning projects, economic development planning, and local or regional land use planning.

Many programs, while broad in scope, affect transportation conditions in the region. For example, DVRPC's Transportation and Community Development Initiative (TCDI) Program is an important effort whereby DVRPC provides planning grants, based on the competitive review of proposals, to counties and municipalities, to support projects that link revitalization, economic development and transportation needs.

DVRPC also responds to the needs of other partners, including state and federal agencies, operating authorities, as well as nonprofit foundations and organizations. Consequently, DVRPC annually undertakes a number of special projects funded under a variety of programs to address pressing regional issues. DVRPC continues to implement programs like coordination with the region's environmental protection and open space organizations and reporting on the region's locally funded open space programs; and promoting linkages between active transportation and healthy communities. DVRPC continues its involvement in the PennDOT Connects Program and continues energy, climate change and resiliency initiatives in both states that include coordination and facilitation, analyses, management, tool development and technical assistance to local governments.

Complementary and supportive initiatives also continue, including the development of the region's Comprehensive Economic Development Strategy, planning for transit system improvements, advancing transportation operations and safety projects, using DVRPC's Travel Demand Model to forecast travel movements on the region's transportation network, and responding to many other needs of DVRPC's member governments and agencies.

Supportive Regional Highway Planning Program (SRHPP), Transit Support Program (TSP), and Geographic Information System (GIS)

DVRPC passes federal Metropolitan Planning (PL) funds to member governments to support their participation in the regional highway planning process (via SRHPP), and transit planning process (via TSP). These pass-through funds can be used by member governments to develop and maintain their planning priorities, programs, and data. In addition to their core planning functions, these programs offer a limited amount of funding for special planning studies to address current areas of need for member governments. DVRPC also passes federal funds to member governments which enables them to expand their GIS capability as necessary to maintain a level of technical sophistication that guarantees interoperability and compatibility among the partners across the region.

SHRPP eligible activities include tasks related to regional planning coordination, and meetings in programs such as the TIP, Long-Range Plan, Congestion Management Process, Transportation Operations Master Plan, and Regional Transportation Safety Action Plan. Detailed scopes of work for each sub-recipient in the SRHPP are found in Chapter Three of this Unified Planning Work Program. Scopes of work may vary but must adhere to the comprehensive planning, programming, monitoring, and coordination of highway and trail networks within a jurisdiction.

TSP eligible activities include tasks related to promoting transit planning and coordination in programs such as TIP, Long-Range Plan, and Congestion Management Process. The detailed scopes for each sub-recipient that receives TSP funds are found in Chapter Four of this Unified Planning Work Program. Scopes vary but must adhere to the comprehensive planning, programming, monitoring, and coordination of transit services within a jurisdiction.

GIS eligible activities include tasks related to the use of GIS in transportation planning including upgrading capabilities and developing and sharing transportation data. The detailed scope is developed for each organization but must adhere to the project description found in Chapter Five of this Unified Planning Work Program. Scopes vary but must adhere to the comprehensive planning, programming, monitoring, and planning to promote information sharing and maintenance of regional transportation GIS data.

UPWP Budget and Funding

The total budget for the FY 2021 Unified Planning Work Program is \$30,620,531, an increase of \$2,100,278 from the FY 2020 Unified Planning Work Program. A significant portion of the increase is attributed to the FY 2021 Transportation and Community Development Initiative (TCDI) Program which has a total program value of \$2,250,000. The Program sets aside \$1,800,000 of federal funds passed through DVRPC to eligible organizations (municipal/county governments, transit agencies) to conduct planning studies and \$450,000 in matching funds from the recipient organizations. These planning studies represent a tool to help implement the region's Long Range Plan. Funding through the TCDI Program is offered on an every other year basis. Overall pass through funding for member governments in FY 2021 is \$8,954,500 or a 20% increase compared to the prior year total of \$7,484,500.

In addition to the core formula planning funds allocated by the FAST Act that DVRPC receives, we are fortunate to receive funds from many other sources to support the planning activities and programs of the commission. The funds come from varied sources including federal agencies, state agencies, member governments, foundations and private sector organizations. Below is a sample of federal and non-federal sources:

Federal Highway Administration (FHWA) Metropolitan Planning Funds

Federal Transit Administration (FTA) Metropolitan Planning Funds

Delaware Valley Regional Planning Commission
 Fiscal Year 2021 | Unified Planning Work Program

Table 1: Funding Summary

FUNDING SOURCE	GENERAL FUND	HIGHWAY PROGRAM	TRANSIT PROGRAM	COMP PLANNING	OTHER PROGRAMS	TOTAL
MISCELLANEOUS	\$0	\$0	\$0	\$0	\$2,982,390	\$2,982,390
FAA	0	0	0	0	351,001	351,001
PA FTA	0	0	1,328,000	0	515,000	1,843,000
PA FHWA	0	4,292,000	0	0	4,728,800	9,020,800
PA STATE	0	670,000	0	0	278,600	948,600
PA OTHER	0	0	0	0	506,000	506,000
LOCAL	0	0	0	0	-	0
NJ FTA	0	0	502,363	0	-	502,363
NJ FHWA	0	2,525,771	0	0	1,426,600	3,952,371
NJ STATE	0	0	0	0	-	0
LOCAL	0	0	0	0	72,500	72,500
PA LOCALS	\$152,448	\$403,000	\$332,000	\$355,120	\$3,055	\$1,245,623
Bucks County	23,782	39,958	39,501	55,399	611	159,251
Chester County	18,964	75,919	52,669	44,177	611	192,340
Delaware County	19,971	63,933	39,501	46,521	611	170,537
Montgomery County	30,413	59,936	52,669	70,846	611	214,475
City of Philadelphia	58,022	159,828	144,839	135,158	611	498,458
City of Chester	1,296	3,426	2,819	3,019	-	10,560
NJ LOCALS	\$61,484	\$0	\$0	\$177,455	\$2,444	\$241,383
Burlington County	17,068	0	0	49,262	611	66,941
Camden County	16,583	0	0	47,860	611	65,054
Gloucester County	10,963	0	0	31,640	611	43,214
Mercer County	10,704	0	0	30,895	611	42,210
City of Camden	2,939	0	0	8,482	-	11,421
City of Trenton	3,227	0	0	9,316	-	12,543
SUBTOTAL DVRPC	\$213,932	\$7,890,771	\$2,162,363	\$532,575	\$10,866,390	\$21,666,031
MEMBER GOVERNMENTS AND TRANSIT OPERATING AGENCIES						
PA FTA	\$0	\$0	\$900,000	\$0	\$0	900,000
PA FHWA	0	628,000	0	0	\$1,350,000	1,978,000
NJ FTA	0	0	386,600	0	\$0	386,600
NJ FHWA	0	0	0	0	\$2,761,250	2,761,250
PA LOCALS	0	157,000	225,000	0	\$300,000	682,000
NJ LOCALS	0	0	96,650	0	\$150,000	246,650
OTHER	0	0	0	0	\$2,000,000	2,000,000
SUBTOTAL	\$0	\$785,000	\$1,608,250	\$0	\$6,561,250	\$8,954,500
GRAND TOTAL	\$213,932	\$8,675,771	\$3,770,613	\$532,575	\$17,427,640	\$30,620,531

Table 2: Project Funding by Source

Page	PROJECT NUMBER	PROGRAMS/PROJECTS	CORE FY 2021 BUDGET					COMPREHENSIVE PLANNING	OTHER			
			CHPT. TWO-SECT. A	HIGHWAY PLANNING	TRANSIT PLANNING	COMPREHENSIVE PLANNING	OTHER					
		DVRPC PROGRAM AREAS										
		Chpt. Two-Sect. A										
41	21-23-010	Regional Forum	\$	282,500	\$	218,750	\$	61,250	\$	2,500	\$	10,000
43	21-23-020	Work Program and Contracts Administration		347,500		261,719		73,281		2,500		10,000
45	21-23-030	Public Participation, Involvement and Outreach		409,500		310,156		86,844		2,500		10,000
49	21-23-040	Title VI and Environmental Justice		201,500		147,656		41,344		2,500		10,000
53	21-23-050	Data Visualization and Communication		590,000		460,937		129,063		-		-
57	21-23-060	Web Development and Database Management		190,313		679,687		190,313		-		-
59	21-23-070	Data Coordination and Analysis		366,250		281,250		78,750		1,250		5,000
63	21-31-010	Geographic Information Systems		334,400		261,250		73,150		-		-
65	21-33-010	Smart Growth		633,500		362,109		101,391		70,000		100,000
69	21-33-020	Community and Economic Development		543,500		207,812		58,188		42,500		235,000
73	21-33-030	Energy and Climate Change Initiatives		333,250		134,032		37,529		61,689		100,000
79	21-33-040	Environmental Planning		297,000		227,000		-		70,000		-
85	21-34-010	Long-Range Planning		633,500		393,359		110,141		30,000		100,000
89	21-34-020	Delaware Valley Freight Planning		384,500		283,789		79,461		16,250		5,000
93	21-34-030	Transportation Safety		384,250		295,312		82,688		1,250		5,000
99	21-34-040	Regional Congestion Management Process		222,250		168,750		47,250		1,250		5,000
103	21-34-050	Air Quality Planning		244,250		185,937		52,063		1,250		5,000
107	21-34-060	Performance-Based Planning and Asset Management		327,500		158,203		44,297		25,000		100,000
111	21-41-010	Technical Assistance to Member Governments		286,104		207,188		58,035		10,881		10,000
115	21-41-020	Transportation Improvement Program (TIP)		646,250		500,000		140,000		1,250		5,000
119	21-41-030	Transportation Operations		552,950		122,422		34,278		1,250		395,000
125	21-41-050	Competitive Program and Project Management		1,249,500		59,500		-		-		1,190,000
127	21-51-010	Travel and Land Use Modeling		447,250		344,531		96,469		1,250		5,000
131	21-52-010	Regional Transit Planning Program		276,250		-		250,000		21,250		5,000
135	21-52-020	Bicycle and Pedestrian Planning Program		361,750		219,141		61,359		1,250		80,000
139	21-52-030	Corridor Planning Program		672,250		504,687		141,313		21,250		5,000
143	21-52-040	Regional Transportation Demand Management (TDM) Program		312,500		-		-		-		312,500
147	21-53-010	Travel Monitoring		734,500		589,500		-		-		145,000
		Subtotal	\$	12,954,454	\$	7,594,677	\$	2,128,457	\$	388,820	\$	2,852,500
		DVRPC PROJECTS										
		Chpt. Two-Sect. B										
	15-44-300	William Penn-Planning, Design and Construction of Priority Trails**	\$	165,000	\$	-	\$	-	\$	-	\$	165,000
	17-51-160	I-95 NE Phila & Bucks Co.**		70,000		-		-		-		70,000
	17-51-170	I-95 SW Phila & Delaware**		80,000		-		-		-		80,000
	18-33-140	William Penn - DRWI Data/GIS/Modeling Work Group**		60,000		-		-		-		60,000
	18-33-200	William Penn - Completing The Circuit**		80,000		-		-		-		80,000
	19-34-080	Regional Aviation System Planning**		30,000		-		-		-		30,000
	19-34-130	Reg. Aviation Plan - 2045**		50,000		-		-		-		50,000
	19-51-060	Freight Model Enhancement**		200,000		-		-		-		200,000
	20-34-080	Regional Aviation System Planning**		50,000		-		-		-		50,000
	20-51-050	PA 309 Connector Traffic Forecasts		60,000		-		-		-		60,000
	21-10-010	General Fund		213,932		-		-		-		213,932
153	21-31-020	Regional Transportation GIS Coordination		400,000		-		-		-		400,000
155	21-31-040	Aerial Imagery		150,000		-		-		-		150,000
157	21-33-050	Local Technical Assistance Program (LTAP)		30,000		-		-		-		30,000
159	21-33-070	Pennsylvania Coastal Zone Management Implementation Program		50,000		-		-		-		50,000
161	21-33-080	Healthy Communities Planning		95,000		74,219		20,781		-		-
165	21-33-090	PA/NJ Local Planning Initiatives		150,000		-		-		26,255		123,745
167	21-33-100	Hunting Park Station Area Study		125,000		-		-		25,000		100,000
171	21-33-120	Campbells Soup - Camden City Food Economy		50,000		-		-		-		50,000
173	21-33-150	Climate Adaptation Planning and Community Resiliency		50,000		-		-		-		50,000
175	21-33-160	Local Government Energy Implementation Strategies and Initiatives		120,000		-		-		-		120,000

Table 2 Continued

Page	PROJECT NUMBER	PROGRAMS/PROJECTS	CORE FY 2021 BUDGET	HIGHWAY PLANNING	TRANSIT PLANNING	COMPREHENSIVE PLANNING	OTHER
177	21-34-080	Regional Aviation System Planning	115,000	-	-	-	115,000
179	21-34-090	Central Jersey Transportation Forum	125,000	-	-	-	125,000
181	21-34-100	PA Air Quality Action Supplemental Services	125,000	-	-	-	125,000
183	21-34-110	NJ Air Quality Action Supplemental Services	50,000	-	-	-	50,000
185	21-34-120	Regional Transportation Funding Options	220,000	-	-	-	220,000
189	21-34-130	Regional Aviation Plan - 2045 Phase II	275,000	-	-	27,500	247,500
191	21-41-060	Transportation Systems Management and Operations (TSMO)	554,000	-	-	-	554,000
195	21-41-070	I-95 Planning Assistance	100,000	-	-	-	100,000
197	21-51-020	Enhance and Maintain Travel Forecasting Tools	640,000	-	-	-	640,000
201	21-51-040	District 6 Modeling Assistance	460,000	-	-	-	460,000
203	21-51-050	Route 422 Operations and Capacity Study	175,000	-	-	-	175,000
207	21-51-060	Freight Model Enhancement	150,000	-	-	-	150,000
211	21-52-050	Strategic Planning for Regional TDM Program	50,000	-	-	-	50,000
213	21-52-060	Pottstown Area Regional Plan Development	60,000	46,875	13,125	-	-
215	21-52-070	PennDOT Connects Bike-Friendly Resurfacing Program	200,000	-	-	-	200,000
219	21-52-080	Downingtown Area Transportation Study - Phase II	150,000	-	-	-	150,000
221	21-52-090	Commuter Services/Mobility Alternatives Program (Share-a-Ride)	251,000	-	-	-	251,000
225	21-52-100	University City Multimodal Capacity Study	125,000	-	-	25,000	100,000
227	21-52-110	EXPO: Experimental Pop-ups Program	200,000	-	-	-	200,000
229	21-52-120	Ben Franklin Bridge Eastbound Access	180,000	-	-	-	180,000
231	21-53-020/025	HPMS and Functional Classification System (PA & NJ)	185,000	185,000	-	-	-
233	21-53-030	PennDOT District 6-0 Traffic Volume Data	300,000	-	-	-	300,000
235	21-59-700	Member Government Special Studies	853,944	-	-	-	853,944
237	21-59-701	Carryover and Other Projects	888,701	-	-	40,000	848,701
		Subtotal	\$ 8,711,577	\$ 306,094	\$ 33,906	\$ 143,755	\$ 8,227,822
		SUBTOTAL DVRPC PROGRAM	\$ 21,666,031	\$ 7,890,771	\$ 2,162,363	\$ 532,575	\$ 11,080,322

** Carryover Projects

MEMBER GOVERNMENT / TRANSIT OPERATING AGENCIES / OTHER PASS-THROUGH

245-262	Chapter Three A & B						
269-296	A: 21-60-010 to 21-60-051	Supportive Regional Highway Planning Program	\$ 785,000				
	B: 21-61-010 to 21-61-110	NJ Supportive Regional Highway Planning Program					
		PA/NJ Supportive Regional Highway Planning Program	\$ 1,296,250	\$ 785,000	\$ -	\$ -	\$ 511,250
303-326	Chapter Four A & B	Transit Support Program		\$ 1,125,000			
333-348	A: 21-63-000 to 21-63-010	PA Transit Support Program			483,250		
	B: 21-63-020 to 21-63-027	NJ Transit Support Program			1,608,250		
		PA/NJ Transit Support Program	\$ 1,608,250	\$ -	\$ 1,608,250	\$ -	\$ -
	Chpt. Five	Other Member Government Projects					
	15-44-320	William Penn- Planning, Design & Construction of Priority Trails**	\$ 500,000				\$ 500,000
	18-33-200	William Penn - Completing The Circuit **	1,500,000				1,500,000
353	21-53-300	PA/NJ Regional GIS Implementation Coordination	300,000				300,000
355	21-62-000	New Jersey Local Concept Development (2 Years)	1,150,000				1,150,000
357	21-64-000	New Jersey Regional Signal Retiming Initiative Project (2 Years)	350,000				350,000
359	21-66/67-000	PA/NJ Transportation and Community Development Initiatives (2 Years)	2,250,000				2,250,000
		SUBTOTAL MEMBER GOVERNMENTS AND OPERATING AGENCIES	\$ 8,954,500	\$ 785,000	\$ 1,608,250	\$ -	\$ 6,561,250
		GRAND TOTAL	\$ 30,620,531	\$ 8,675,771	\$ 3,770,613	\$ 532,575	\$ 17,641,572

Federal Aviation Administration Funding
PA/NJ Transportation Improvement Program Funds
Member Government Contributions
PennDOT Supplemental Funding
PennDOT Connects (State Planning and Research) Funding
PennDOT State Funds
PA Department of Environmental Protection Funding
DVRPC Local Initiatives
William Penn Foundation Grants
Campbell Soup Foundation Grants

Table 1, *Funding Summary*, shows DVRPC's overall revenue by source to be applied to personnel and operating costs associated with UPWP activities and to the pass-through projects associated with member governments.

Table 2, *Project Funding by Source*, shows the budget and funding sources for each individual Program Area and Project.

Agency Roles and Responsibilities

DVRPC, as the federally-designated MPO, has a requirement to carry out a continuing, cooperative, and comprehensive, performance-based, multimodal transportation planning process. The member agencies that comprise the DVRPC Board and Regional Technical Committee also play key roles in this process, as described below.

The coordination of this planning process with the many involved partners and stakeholders is critical to the successful completion and implementation of the region's plans and programs. The member organizations that make up the DVRPC Board were identified in the legislation that originally created DVRPC in 1965.

The DVRPC Board is comprised of eighteen voting members representing the following organizations: Pennsylvania Department of Transportation, New Jersey Department of Transportation, Pennsylvania Governor's Policy and Planning Office, New Jersey Department of Community Affairs, Pennsylvania Governor's Appointee, New Jersey Governor's Appointee, Bucks County, Chester County, Delaware County, Montgomery County, Burlington County, Camden County, Gloucester County, Mercer County, City of Chester, City of Philadelphia, City of Camden, and City of Trenton.

The Commission receives input and guidance from fifteen additional non-voting Board member organizations. They are: Federal Highway Administration – PA Division, Federal Highway Administration - NJ Division, Federal Transit Administration - Region II, Federal Transit Administration - Region III, US Department of Housing and Urban Development, US Environmental

Protection Agency - Region II, US Environmental Protection Agency - Region III, PA Department of Environmental Protection, NJ Department of Environmental Protection, NJ Office for Planning Advocacy, PA Department of Community and Economic Development, Southeastern Pennsylvania Transportation Authority, New Jersey Transit Corporation, Delaware River Port Authority, and Port Authority Transit Corporation.

State Departments of Transportation (DOTs) – DVRPC works cooperatively with the Pennsylvania and New Jersey Departments of Transportation (PennDOT and NJDOT) in carrying out all of its transportation planning and programming activities. PennDOT and NJDOT representatives serve on all transportation related committees, as well as the DVRPC Board. Although outside our MPO boundary, staff from the Delaware and Maryland Departments of Transportation serve on DVRPC committees responsible for planning activities around freight, aviation, and transportation-related air quality issues.

The state DOTs are responsible for a number of activities that affect the metropolitan planning process. They are charged with development of statewide long-range plans, which include coordination with the long-range transportation plan developed by DVRPC. Each state DOT also develops a Statewide Transportation Improvement Program (STIP), which must embody the appropriate sections of DVRPC’s regional TIP. Accordingly, both state DOTs participate actively in the process by which projects are prioritized and included in DVRPC’s TIP.

Initially designated in MAP-21 and carried over into the FAST Act, the state DOTs have the lead responsibility for developing a State Freight Plan, statewide asset management systems, and a Strategic Highway Safety Plan. Development of these plans and systems involves extensive consultation with DVRPC and other MPOs and helps DVRPC to identify transportation needs and recommendations for addressing them.

The state DOTs also serve as the primary intermediaries between DVRPC and federal transportation agencies, including the Federal Highway Administration (FHWA), Federal Transit Administration (FTA) and Federal Aviation Administration (FAA).

City and County Planners – The nine counties (Bucks, Chester, Delaware, Montgomery, Philadelphia, Burlington, Camden, Gloucester, and Mercer) and three cities (Chester, Camden, and Trenton) that comprise the DVRPC region and whose representatives sit on the DVRPC Board are key partners in the regional planning process. Using some of the federal planning funds made available to DVRPC, resources are passed through to the member governments to support their transportation planning work and the extensive coordination needed to prepare and maintain a regional planning process. Member governments also have seats on DVRPC’s working committees, identify and prioritize projects for the TIP, contribute needed input into the development of the Long-Range Plan, and provide the local knowledge and perspective needed to integrate with the regional planning process.

NJ Department of Community Affairs – DCA is a State agency created to provide administrative guidance, financial support and technical assistance to local governments, community development organizations, businesses and individuals to improve the quality of life in New Jersey. DCA offers a wide range of programs and services that respond to issues of public concern including community planning and development, housing production, fire and building safety, and local government management and finance.

DVRPC's Board voting membership also includes a representative from the PA Governor's Policy and Planning Office and a PA Governor's appointee as well as an NJ Governor's appointee. These voting members provide input into the regional planning process from a guidance and policy development perspective. In addition to the organizations that formally make up the voting members of the DVRPC Board, coordination with several other federal and state partners and operating agencies is essential for the development of plans and programs which identify and implement the priority transportation investments in the region. Those agencies are identified below.

Transit Operators – the largest provider of public transportation in the Delaware Valley region is the Southeastern Pennsylvania Transportation Authority (SEPTA). Substantial service is also provided by New Jersey Transit Corporation (NJT), Port Authority Transit Corporation (PATCO), and Pottstown Area Rapid Transit (PART). Each is responsible for both the capital and operating needs in their respective service areas. They are the principal source for identifying transit projects for inclusion in the transit portion of DVRPC's TIP. They also carry out many of the transit planning activities, funded in part through DVRPC's Planning Work Program and through other sources. PATCO, a subsidiary of the Delaware River Port Authority (DRPA), is responsible for operations management of the transit agency, while DRPA is responsible for planning. Transit operating agencies are participatory non-voting members of the DVRPC Board but voting members of DVRPC's Regional Technical Committee and other working committees.

Federal Highway Administration – As a bi-state MPO, DVRPC is served by FHWA Division Offices in both Pennsylvania and New Jersey. The FHWA Division Offices are local field offices that provide leadership, guidance, and direction to State Departments of Transportation and MPOs in the planning, construction and maintenance of transportation projects. Working collaboratively with State partners, FHWA Division Offices ensure that the nation's roads, bridges and tunnels are safe and continue to support economic growth and environmental sustainability.

Federal Transit Administration – The FTA field offices, organized by Region, help transit operators, MPOs and state DOTs plan, apply, execute, and complete transit projects in their region. Their primary role is to oversee federal funding, provide grant support and program management as well as guidance on environmental, planning and other critical elements of transit projects. The DVRPC

region straddles parts of Region II (New York and New Jersey) and Region III (Delaware, Maryland, Pennsylvania, Virginia, West Virginia, and the District of Columbia).

US Department of Housing and Urban Development – HUD's mission is to create strong, sustainable, inclusive communities and quality affordable homes for all. HUD is working to strengthen the housing market to bolster the economy and protect consumers; meet the need for quality affordable rental homes; utilize housing as a platform for improving quality of life; build inclusive and sustainable communities free from discrimination, and transform the way HUD does business. The Department is also organized with DVRPC being served by both Region II (New York and New Jersey) and Region III (Delaware, Maryland, Pennsylvania, Virginia, West Virginia, and the District of Columbia).

State Departments of Environmental Protection (DEPs) – The Pennsylvania and New Jersey Departments of Environmental Protection have overall responsibility for compliance with the Clean Air Act, including development and adoption of air quality plans known as State Implementation Plans (SIPs). Both agencies rely on DVRPC as the lead planning agency for highway-related control measures for air quality in the metropolitan area. As a result, DVRPC provides transportation data used in emissions inventories and identifies and analyzes potential air quality strategies. State air quality agencies from all four states in the Philadelphia Ozone Nonattainment Area serve on DVRPC's Regional Air Quality Committee.

PA Department of Community and Economic Development – The mission of DCED is to foster opportunities for businesses to grow and for communities to succeed and thrive in a global economy. The Department seeks to improve the quality of life for Pennsylvania citizens while assuring transparency and accountability in the expenditure of public funds.

NJ Office of Planning Advocacy – The office staffs the New Jersey State Planning Commission and the New Jersey Brownfields Redevelopment Task Force. Through the State Development and Redevelopment Plan, the office works to improve the efficiency and reduce the costs of land development and infrastructure in New Jersey by expanding areas of coordination and cooperation among State and local agencies.

Delaware River Port Authority – DRPA is a regional transportation agency that serves as steward of four bridges that cross the Delaware River between Pennsylvania and New Jersey. Through its Port Authority Transit Corporation (PATCO), the DRPA also operates a transit line between Camden County, New Jersey and Center City Philadelphia. DRPA operates, maintains, improves and protects key transportation infrastructure for the benefit of the region's citizens.

Lastly, there are several other agencies and authorities that have jurisdiction over facilities that make up important components of the region's transportation system. It is important that DVRPC coordinates and shares information on our plans and programs with these organizations so that all

stakeholders may make informed transportation investment decisions. Key regional agencies and authorities are also identified below.

PA Turnpike Commission – The PA Turnpike consists of a 552-mile system of highways and bridges that are an integral component of the regional, state-wide, and national ground transportation network that must be maintained, protected and constantly improved. The Turnpike Commission strives to operate a safe, reliable, customer-valued toll road system that supports national mobility and commerce.

New Jersey Turnpike Authority – The Turnpike Authority is dedicated to the safe and efficient movement of people and goods over two of the busiest toll roads in the United States -- the New Jersey Turnpike (148 miles) and the Garden State Parkway (173 miles). The Authority's highways are a critical link in the transportation network of the Northeast I-95 Corridor. Every day, they provide the safest, quickest, and most convenient routes for hundreds of thousands of commuters, truckers, and recreational travelers.

South Jersey Transportation Authority – The SJTA was established by the New Jersey Legislature in June 1991 to assume operational responsibilities for the 44-mile long Atlantic City Expressway, Atlantic City International Airport terminal, and parking facilities in Atlantic City. SJTA also operates several shuttles in their region providing access to employment and shopping sites, rail stations, and educational institutions. The SJTA serves six counties --- Atlantic, Camden, Cape May, Cumberland, Gloucester, and Salem.

Delaware River Joint Toll Bridge Commission – DRJTBC's 140-mile jurisdiction extends from the Philadelphia-Bucks County line to the New Jersey/New York state border. In addition to its 20 Delaware River crossings (7 tolled, 13 non-tolled), the Commission owns and operates an additional 34 approach structures (smaller overpass/underpass type bridges) throughout its region. The Commission is committed to moving job commuters, commercial freight carriers, pedestrians and recreationists, it strives to deliver quality customer service, sound fiscal management, and dependable ground-transportation facilities.

PhilaPort, also referred to as The Port of Philadelphia, is an independent agency of the Commonwealth of Pennsylvania charged with the management, maintenance, marketing, and promotion of port facilities along the Delaware River in Pennsylvania, as well as strategic planning throughout the port district. PhilaPort works with its terminal operators to improve its facilities and to market those facilities to prospective port users around the world. Port cargoes and the activities they generate are responsible for thousands of direct and indirect jobs in the Philadelphia area and throughout Pennsylvania.

South Jersey Port Corporation – The South Jersey Port Corporation was created in 1968 to operate marine shipping terminals in the South Jersey Port District which consists of seven counties:

Burlington, Camden, Gloucester, Salem, Cumberland, Mercer and Cape May. The SJPC is a quasi-state agency, which reports through the Department of Treasury to the Governor of New Jersey. The SJPC owns and operates the Joseph A. Balzano and Broadway Marine Terminals in the Port of Camden, the Salem Marine Terminal at the Port of Salem, and is constructing the Paulsboro Marine Terminal at the Port of Paulsboro.

It is the ongoing coordination and history of cooperation among all these organizations that has led to an efficient transportation planning process in this region which continues to result in priority investments aimed at preserving, maintaining, operating, and growing where necessary, a seamless multimodal regional transportation network.

DVRPC's Working Committees

One of the primary roles of DVRPC is to coordinate its planning programs, and those of its member governments, with citizens residing in the region. To accomplish this objective, the DVRPC Board has established several committees to address the regional issues of transportation, land use, air quality, housing, airports, goods movement and citizens' concerns. These committees enhance the regional forum provided by the Board and extend it so that all interested and involved parties can discuss and provide direction for policy on regional planning in the Delaware Valley. The working committees include:

The Regional Technical Committee (RTC) serves as an advisory unit, reporting directly to the DVRPC Board, in reference to: (1) Transportation Planning initiatives, (2) the development and maintenance of the Transportation Improvement Program, (3) the development of the Long-Range Plan, (4) the development of the Unified Planning Work Program, and (5) all other transportation planning as directed by the Board.

The Public Participation Task Force (PPTF) provides access for the public to the regional planning and decision-making process, to review timely issues, and to advise on public outreach strategies. The Task Force is composed of appointed members nominated by the member governments, as well as citizens at large, who are selected through an application process.

The Delaware Valley Goods Movement Task Force (DVGMTF) was established to maximize the Delaware Valley's goods movement capability by sharing information and technology between public and private freight interests, promoting the region's intermodal capabilities and capacity, and developing and implementing a regional goods movement strategy. It advises the DVRPC Board on all goods movement issues, studies and projects.

The Information Resources Exchange Group (IREG) provides a forum for the exchange of ideas, practices and experiences among regional data managers.

The Regional Community and Economic Development Forum (RCEDF) facilitates the various economic development, land use and housing agencies in the region to work together on issues of regional importance, fosters greater cooperation between agencies, strives to coordinate regional transportation and land use planning activities with the needs of the economic development community and advises on the development of the Comprehensive Economic Development Strategy.

The Regional Aviation Committee (RAC) provides technical and policy guidance concerning regional airport systems to the states, DVRPC and the Federal Aviation Administration.

The Regional Safety Task Force (RSTF) is an interdisciplinary team of safety stakeholders/professionals that offers guidance and direction to the Commission's transportation safety planning program. The focus of the task force is diverse and addresses all users and operators of the transportation network, as well as all modes. The Task Force provides valuable input in the development of the Regional Transportation Safety Action Plan.

The Transportation Operations Task Force (TOTF) is the focal point of regional ITS and operations coordination. The Task Force is a forum for agencies to share information on ITS deployments, develop a consensus on regional operations issues, and respond to federal and state initiatives. It has the ability to establish subcommittees to tackle specific issues as they arise. As a technical-level group, it informs DVRPC's ITS and Transportation Systems Management and Operations planning activities that in turn support the Task Force.

The Central Jersey Transportation Forum (CJTF) has been meeting since 1999 to address concerns of municipalities in Mercer, Middlesex, and Somerset counties focused on the US 1 corridor. High-level representatives from twenty-five municipalities, three counties, and numerous state agencies and other organizations meet to coordinate and to discuss transportation and land use issues and implement solutions.

The Urban Waterfront Action Group (UWAG) was created in 1980 through the PA Coastal Zone Management (CZM) Program to provide "one-stop" shopping for information about waterfront development permits in the Delaware Estuary in Pennsylvania.

The Healthy Communities Task Force was first convened in 2014 to bring together public health, planning, and related professionals in the Greater Philadelphia area. The Task Force provides a venue for people interested in fostering healthy communities to learn about other communities, both near and far, that are successfully integrating planning and public health including active transportation. It serves as a way for professionals in these fields and stakeholders in our communities to deepen their understanding of healthy communities and build the relationships to achieve them.

The Futures Group provides subject matter experts a forum to use exploratory scenario planning to understand how various forces (social, technological, environmental, economic, or political) are shaping the region; and to identify ways to better respond to, or benefit from, those forces.

UPWP Program Areas

This Planning Work Program continues the reorganized structure begun in FY 2008 which consolidated many related projects into program areas. Some initiatives remain as stand-alone projects due to special circumstances. Each Program Area's concept allows various tasks and initiatives to be emphasized from year to year at the DVRPC Board's direction. Tasks and activities identified within the Program Areas seek to address the planning priorities facing the region. Samples of the key products to be undertaken within the Program Areas, during FY 2021, are highlighted in the Program Area descriptions below. Successful completion of these planning activities within these Program Areas and Projects may require the purchase of equipment or services.

Regional Forum

This project ensures continued intergovernmental and policy coordination, as well as administrative oversight by the DVRPC Board and its Committees, through the provision of secretariat and management services. Through the Board Policy Committee, identification, monitoring and formulation of policy analyses for issues of regional significance is undertaken. Staff activities include researching and monitoring key issues, review of pertinent federal and state legislation or policy guidance, technical assistance and drafting proposed position statements or comment letters for consideration by the Policy Committee and the Board.

Key Products: agendas and minutes of Board and Executive Committee meetings

Work Program Administration

Preparation of the Unified Planning Work Program includes negotiating program and project funding, monitoring progress throughout the year, and preparing and submitting required applications and contract documents. Administering the UPWP also includes preparing, administering and providing technical assistance for contracts between DVRPC and PA/NJ member governments to advance regional highway planning and transit supportive planning at the local level.

Key Products: FY 2022 Unified Planning Work Program as well as contracts and agreements to support it.

Public Participation, Involvement, and Outreach

DVRPC is committed to reaching audiences both familiar and unfamiliar with the regional planning process. This program supports DVRPC's responsibilities related to legal and public noticing, public information requests, and maintaining the Commission's website and social media platforms. This program also supports project-specific public outreach and meeting facilitation, and agency-wide

earned media, government relations, and public affairs. DVRPC's current ongoing forum for public involvement is the Public Participation Task Force (PPTF). The mission of the PPTF is to provide ongoing access to the regional planning and decision-making process, to review timely issues, to serve as a conduit for DVRPC information to organizations and communities across the region, and to assist the Commission in implementing public outreach strategies.

Key Products: DVRPC FY2020 Annual Report, Monthly e-Newsletter, and agendas and meeting documentation for the Public Participation Task Force.

Title VI and Environmental Justice

The Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) have had a longstanding policy of actively ensuring nondiscrimination in federally funded activities under Title VI of the 1964 Civil Rights Act and the 1994 President's Executive Order on Environmental Justice. Civil Rights and environmental justice issues are an integral focus of the transportation planning and programming process. This commitment is reflected in DVRPC's Work Program, products, communications, public involvement efforts, and general operations.

Key Product: Refined and Updated Indicators of Potential Disadvantage Compliance Tool, ongoing evaluation of Commission's efforts, and updated Title VI Compliance Plan and associated policies.

Data Visualization and Communication

This project will provide information and data to the public and decision-makers that is clearly understood and used, by applying graphic design and visualization techniques that explain and enhance the technical analyses and that presents materials in an attractive and accessible format.

Key Products: Supporting project graphics, including reports, infographics, charts, PowerPoint presentations, workshop materials, newsletters, annual reports, brochures

Web Development and Database Management

This project will ensure the DVRPC's website is constantly up-to-date and accessible. Accessing current, reliable, and relevant data is critical to planners and decision-makers. Web applications developed by DVRPC staff provide data visualizations and analyses not possible with traditional print products. As the region's MPO, DVRPC, through our website, provides an immense amount of information and offers a wide variety of products and services.

Key Products: interactive GIS mapping applications, and online content for the DVRPC website

Data Coordination and Analysis

This program supports new and ongoing internal and external data coordination activities. DVRPC will continue to strengthen relationships with its planning partners such as the state DOTs and transit agencies in an effort to streamline data sharing workflows as well as improve general information and knowledge sharing about agency datasets. Along with Census products like the American Community Survey (ACS) and the Census Transportation Planning Package (CTPP), this program also includes reviewing and assessing other public and private data sources. Internal

coordination efforts aim to: improve communication among staff; identify and support staff stewards of planning data to improve data development, maintenance, and sharing activities; and improve data discovery and dissemination. Additional program tasks include maintaining DVRPC's regional online information network; coordinating with the Census Bureau; and administering the Commission's Information Resources Exchange Group (IREG).

Key Product: Web-based Data Search Tool

Geographic Information Systems

A Geographic Information System (GIS) is an important planning tool that provides benefits to DVRPC, its member agencies, and others by supporting state, regional, county, and local planning and technical projects. GIS is the integration of hardware, software, and data used to collect, store, analyze and display spatially referenced information. GIS allows planners to view and query spatial data and perform advanced analysis to discover relationships, patterns, and trends that support their planning activities. Visualizing information is an integral part of nearly every project, and GIS is highly utilized to create maps necessary for meetings and reports. Improving the accessibility of spatial data is critical to the continued success of GIS and tasks under this program will be coordinated with the Data Coordination and Analysis, Data Visualization and Communication, as well as Web Development and Database Management programs.

Key Products: Updated and new web mapping applications

Smart Growth

The Smart Growth work program will continue DVRPC's work on linking land use and transportation planning while also enhancing the level of outreach, education, coordination, advocacy, and overall support for smart growth principles. This program supports greater understanding of sprawl and its impacts on the region's accessibility and mobility, land preservation, urban revitalization, and economic development.

Key Product: Cultural Heritage Case Studies

Community and Economic Development

This program develops economic and community development strategies for the region through the Comprehensive Economic Development Strategy process, convening meetings with regional economic development stakeholders, facilitating a municipal grant program, developing revitalization strategies through retail and land use analysis, and advancing equity and opportunity for all across the region.

Key Products: TCDI and CEDS Performance Measures

Energy and Climate Change Initiatives

This program focuses the attention of local governments on developing policies and actions for reducing energy use and associated greenhouse gas emissions and adapting to predicted climate change impacts by providing leadership, coordination, and technical assistance on these issues.

Key Products: Countywide EV Charging Infrastructure Analysis for Camden County, Climate Change Workshops for NJ Counties

Environmental Planning

The Environmental Planning Program Area promotes a clean and sustainable environment and implementation of *Connections 2045* by assisting in efforts to preserve the 2045 Greenspace Network and 2045 Conservation Focus Areas, and to complete The Circuit (Greater Philadelphia’s regional trail network) for natural resource protection, agricultural preservation, outdoor recreational, and alternative commuting purposes. This program will also enable DVRPC staff to work with local communities to identify and develop targeted management practices and policy approaches for increasing resiliency.

Key Products: Updated Coastal Resiliency Story Map for four NJ counties, Climate Adaptation Forum

Long-Range Planning

The Long-Range Plan Program Area fosters and maintains a long-range vision to guide development patterns and transportation investments in the region and identifies strategies to implement the vision. The program ensures that the region’s transportation investments are linked to long-range land use, environmental protection, economic development, and transportation goals, while providing guidance and a policy framework for numerous other DVRPC programs. The current Long-Range Plan was adopted in October 2017.

Key Product: Connections 2050 Long-Range Plan Policy Report and Process Manual

Delaware Valley Freight Planning

This program is intended to maximize the Delaware Valley’s position in the global economy by promoting cooperation within the local freight community and implementing a regional goods movement strategy in accordance with State DOT and FAST Act guidance. This program will allow staff to continue to maintain and update Philly Freight Finder, our freight data portal for the Delaware Valley.

Key Product: Municipal Implementation Tool brochure on Truck Routing and Parking

Transportation Safety

This program supports the goals of DVRPC’s Long-Range Plan, Regional Safety Analysis and Plan, and the DOTs’ Strategic Highway Safety Plan. It incorporates the transportation safety Planning Factor, as required by federal metropolitan planning regulations, into the transportation planning process, and seeks to improve the safety of the region's transportation system, while maintaining acceptable levels of accessibility and efficiency. The program addresses transportation safety from a multipronged approach in which coordination and outreach are important factors.

Key Product: Road Safety Audit and Traffic Calming study of Harrison Avenue in Camden City and support to NJDOT on their Strategic Highway Safety Plan Update

Regional Congestion Management Process

The CMP is a systematic process for managing congestion in the DVRPC region. It analyzes the multimodal transportation system, defines congested corridors, and results in agreed-upon strategies for each congested sub- corridor at a regional planning level. The CMP strengthens the connection between the Long-Range Plan, TIP, and other projects. It includes work with DOT, transit agencies, and county project managers and others to help make transportation investments more effective. Staff initiated the most recent update of the CMP in FY 2019.

Key Product: CMP Supplemental Project Status Memorandum and web site.

Air Quality Planning

The Air Quality Planning Program Area improves air quality in the region through coordination of intra- and interregional policies, public education and demonstration of transportation conformity of the region's Long-Range Plan and transportation improvement programs.

Key Product: Transportation Air Quality Conformance Demonstration Report

Technical Assistance to Member Governments

This Program Area ensures intergovernmental coordination, technical evaluation, and regional policy formulation on transportation issues, projects, and plans through monthly meetings of the Regional Technical Committee and quarterly meetings of the Regional Aviation Committee (including meeting minutes and pertinent presentations, research and technical assistance activities). Special studies and local asset inventory activities are also included.

Key Products: successful monthly meetings of the Regional Technical Committee and quarterly meetings of the Regional Aviation Committee including the documentation of agendas and minutes

Transportation Improvement Program (TIP)

This program area provides for transportation financial planning and capital programming for the DVRPC region. Staff works with state, regional, and federal planning partners to identify financial resources available from public and private sources to implement the Transportation Improvement Program (TIP) as well as the Long-Range Plan. Serving as the facilitator for the region's stakeholders, DVRPC both develops and maintains a regional Transportation Improvement Program (TIP) for Pennsylvania and New Jersey, as mandated by federal regulations; identifies and selects transportation projects that address the needs of the region; advances the goals of the Long-Range Plan; documents modifications to the program; and provides information and documents related to those processes, funding, and capital programming issues. This information will be provided to stakeholders and the public via meeting materials and postings on the DVRPC website. DVRPC will undertake an extensive public participation program that responds to the requirements of FAST Act and environmental justice concerns, as it relates to this program. DVRPC staff, along with significant input from our stakeholders, developed and our Board adopted a TIP for NJ in September of 2019. Also, in FY2020, a similar process was be undertaken for the development of a

PA TIP which is expected to be adopted in Summer 2020.

Key Products: development of a new TIP for NJ and an updated and maintained TIP for PA

Transportation Operations

Transportation Operations is one of the transportation planning factors mandated by federal metropolitan planning regulations. It represents a broad array of short-term improvement strategies employing training, technology, and interagency coordination that will address recurring and non-recurring congestion via a variety of approaches including traffic incident management and upgraded signal re-timing.

Key Product: continued best-practice trainings via eight traffic Incident Management Task Forces

Performance Based Planning and Asset Management

Performance-based planning was one of the most transformative elements of the MAP-21 federal transportation legislation, which was continued and reinforced in the FAST Act. The initiative is a strategic approach that uses real data to measure how our systems and infrastructure are performing to make investment decisions that help organizations reach a set of predetermined targets that guide how their systems and infrastructure should operate. USDOT has implemented new regulations related to Transportation Performance Management (TPM) through the Federal Rulemaking process. This Program Area will allow DVRPC to continue working closely with our state DOT's, and transit operators to address the transportation performance management requirements by coordinating on and setting performance measure targets.

Key Product: continued coordination with planning partners to address US DOT Transportation Performance Management requirements

Competitive Program and Project Management

This Program Area enables DVRPC staff to assist the state DOTs with the implementation of traditional and nontraditional projects by serving as adjunct project managers as well as running competitive grant programs with the state DOTs. The FAST Act includes funding for nontraditional transportation projects such as multiuse trails, streetscapes, historic restorations, alternative fueled vehicles, travel demand management, local highway and bridge projects, as well as projects that contribute to the attainment of the Clean Air Act by reducing emissions from highway sources. Three categories of federal funding that provide broad eligibility for these nontraditional and local transportation projects are: Transportation Alternatives, Congestion Mitigation and Air Quality and the Surface Transportation Program. Capital Program funds are also provided to the counties through the Local Concept Development Program in New Jersey.

Key Product: successful completion of competitive project selection program and management of selected projects

Travel and Land Use Modeling

The Travel and Land Use Modeling work program element is intended to develop, enhance,

maintain, and apply DVRPC's Land Use, Travel Demand, and Air Quality Models in support of a wide variety of planning activities. Short and long-range regional, corridor, and facility planning studies require accurate socioeconomic, land use, and travel forecasts. Certification of the regional plan and planning process require up to date models that address federal regulations. The models that produce these projections and perform these analyses need to be validated and calibrated with current data. Furthermore, refinement and revalidation of DVRPC's land use, travel simulation, and mobile source emissions models are needed on a continuing basis to maintain the accuracy and credibility of forecasts and to respond to new mandates and guidance from the federal government, state agencies, and member governments. In addition to the studies performed by DVRPC, staff will also provide support and assistance under this program to DVRPC's consultants as they upgrade the land use and travel models and related software.

Key Product: updated travel demand model and validation data

Regional Transit Planning Program

This program supports the conduct of transit planning studies, with project selections guided by our planning partners. Work includes evaluations of proposed services or facilities, corridor level transit analysis, evaluations of enhancements to transit access, studies to improve bicycle and pedestrian connectivity with transit, and examinations of the relationship between land use and transit for specific sites or corridors.

Key Product: Additional concept development for a new SEPTA Direct Bus route.

Bicycle & Pedestrian Planning Program

This program promotes transportation facilities and land use decisions that support active modes of transportation to make walking and biking more safe, convenient, affordable, and attractive transportation options throughout the region. Projects emphasize stakeholder outreach, the development and sharing of new data resources using bicycle and pedestrian counters, and the conduct of analysis to develop appropriate, safe, and context-sensitive bicycle and pedestrian facilities and "complete streets" in communities throughout the DVRPC region. As an area of focus, this work includes an emphasis on Active Transportation and Active Places—the idea that those places where walking and biking (Active Transportation) are prevalent are good for the vibrancy and quality of life of a community (Active Places), and vice versa. With this integrated approach, communities gain health benefits, increased mobility, economic stability, and an overall sense of vibrancy.

Key Product: Analysis and prioritization of regional sidewalk gaps based on regional sidewalk inventory data.

Corridor Planning

This program seeks to alleviate congestion and improve the accessibility, efficiency, and safety of the existing transportation network for all modes, and inform local governments, affected stakeholders, and the public about current best practices to achieve effective corridor and area

plans that link land use and transportation goals and policies. The process is designed to better inform regional transportation and land use decision making.

Key Product: concept development for potential bicycle improvements on Mercer County's resurfacing program.

Regional Transportation Demand Management Program

This program supports development and oversight of regional Transportation Demand Management (TDM) Initiatives. This includes traditional TDM activities with demonstrated single-occupant vehicle (SOV) trip reduction benefit as well as pilots or experiments for new TDM projects and tools to manage demand and create and cultivate new mobility options for residents and workers.

Key Product: TDM initiatives oversight and implementation of at least one new pilot program.

Travel Monitoring

Under this Program Area, travel data is collected and processed. The primary form being traffic counts, including hourly and 48 hour traffic volumes, for selected locations on the regional highway network. Data collected will provide input to VMT forecasting, the Traffic Monitoring System (TMS), the Congestion Management Process (CMP), travel simulation models, individual project level analysis and traffic monitoring and trend analysis. This information is vital to all project studies that address highway deficiencies and proposed solutions. The types of data collected have recently been enhanced to include the monitoring of selected bicycle and pedestrian movements. In addition, DVRPC facilitates the periodic review and revision of the region's highway functional classification system.

Key Product: collection of approximately 3,000 new vehicle, bicycle, and pedestrian counts and upload those counts into DVRPC's web-based traffic count viewers

UPWP Linkages

The FY 2021 Unified Planning Work Program serves as an important implementation tool to achieve the directives of the FAST Act. In an effort to highlight the connection between the individual Program Areas in the Unified Planning Work Program and the ten Planning Factors stipulated in the FAST Act, a matrix was developed that shows that linkage (Table 3). Both primary and peripheral associations between the Program Areas and the Planning Factors are shown. As DVRPC develops future work programs, we will continue to strive to meet the key principles of the surface transportation act current at that time.

In addition to addressing the federal legislative requirements, the UPWP serves as an important implementation tool to achieve the future land use and transportation development vision that is set forth in the region's Long-Range Plan. The five key principles of the Long-Range Plan serve as a framework for many of the projects and programs undertaken by DVRPC. In an effort to highlight the connection between the individual Program Areas of the UPWP and the Long-Range Plan, a

matrix was developed that shows the linkage between these two core documents (Table 4). Both primary and peripheral associations between the Program Areas and the five key principles of the Long-Range Plan are shown.

Another key function of the UPWP is its ability to identify and prioritize the tasks that the MPO will be working on and designate the appropriate resources to undertake and complete those required tasks within the assigned timelines. Table 5 identifies the required Plans/Programs or Activities that DVRPC will undertake as part of the regional planning process and their assigned completion and update cycles.

Table 3: FAST Act Planning Factors

DVRPC Program Areas	1. Economic Vitality	2. Safety	3. Security	4. Accessibility and Mobility	5. Environment and Energy	6. Integration and Connectivity	7. Efficient System Management/Operations	8. System Preservation	9. Resiliency and Reliability	10. Travel and Tourism
Regional Forum										
Work Program and Contract Administration										
Public Participation, Involvement and Outreach										
Title VI and Environmental Justice										
Data Visualization and Communication										
Web Development and Database Management										
Geographic Information Systems										
Smart Growth										
Community and Economic Development										
Energy and Climate Change Initiatives										
Environmental Planning										
Long-Range Planning										
Freight Planning										
Transportation Safety										
Congestion Management Process										
Air Quality Planning										
Data Coordination and Analysis										
Technical Assistance to Member Governments										
Transportation Operations										
Performance-Based Planning and Asset Management										
Competitive Program and Project Management										
Travel and Land Use Modeling										
Regional Transit Planning Program										
Bicycle and Pedestrian Planning Program										
Corridor Planning										
Regional Transportation Demand Management (TDM) Program										
Travel Monitoring										

● Primary Association | ● Secondary Association | ○ N/A

Table 4: Long Range Plan Key Principles

DVRPC Program Areas	Develop Livable Communities	Sustain the Environment	Expand the Economy	Advance Equity and Foster Diversity	Create an Integrated Multimodal Transportation Network
Regional Forum					
Work Program and Contract Administration					
Public Participation, Involvement and Outreach					
Title VI and Environmental Justice					
Data Visualization and Communication					
Web Development and Database Management					
Geographic Information Systems					
Smart Growth					
Community and Economic Development					
Energy and Climate Change Initiatives					
Environmental Planning					
Long-Range Planning					
Freight Planning					
Transportation Safety					
Congestion Management Process					
Air Quality Planning					
Data Coordination and Analysis					
Technical Assistance to Member Governments					
Transportation Improvement Program (TIP)					
Transportation Operations					
Performance-Based Planning and Asset Management					
Competitive Program and Project Management					
Travel and Land Use Modeling					
Regional Transit Planning Program					
Bicycle and Pedestrian Planning Program					
Regional Transportation Demand Management (TDM) Program					
Corridor Planning					
Travel Monitoring					

● Primary Association | ● Secondary Association | ○ N/A

Table 5: MPO Regional Planning Process Requirement Milestones

Plan/Program Activity	Current Adoption/Completion	Next Adoption/Completion
Unified Planning Work Program	January 2019	January 2020
Transportation Improvement Program	July 2018 (PA) September 2019 (NJ)	July 2020 (PA) September 2021 (NJ)
Air Quality Transportation Conformity Determination	July 2018 (PA) September 2019 (NJ)	July 2020 (PA) September 2021 (NJ)
Long-Range Plan	October 2017	July 2021
Public Participation Plan	July 2018	As needed – evaluated annually
Limited English Proficiency Plan	April 2019	April 2024 – evaluated annually
Congestion Management Process	January 2020	Winter 2024
Transportation Safety Analysis and Plan	January 2019	Spring 2021
Coordinated Human Services Transportation Plan	October 2016	October 2020
CMAQ Performance Plan	September 2018	September 2020
US DOT MPO Planning Process Certification Review	October 2018 (site visit) February 2019 (final report)	October 2022 (site visit) February 2023 (final report)



PHOTO BY THOM STEAD

CHAPTER 2A

DVRPC Program Area Descriptions

JUNE 2020



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PROJECT: 21-23-010 Regional Forum

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Renee Wise

Project Manager: Barry Seymour

Goals:

To ensure intergovernmental coordination and technical assistance to the region's member governments and operating agencies.

Description:

This project ensures continued intergovernmental and policy coordination, as well as administrative oversight by the DVRPC Board and its Committees, through the provision of secretarial and management services. Through the Board Policy Committee, identification, monitoring, and formulation of policy analyses for issues of regional significance are undertaken. Staff activities include researching and monitoring key issues, review of pertinent federal and state legislation or policy guidance, technical assistance and drafting proposed position statements or comment letters for consideration by the Policy Committee and the Board. This project also includes coordination with the Office of Communications and Engagement on public information requests.

Tasks:

1. Plan, develop, coordinate and schedule all business to be transacted by the Board, Executive Committee and its subcommittees with follow-through to ensure that actions are implemented.
2. Record proceedings and maintain official records of all meetings.
3. Review and coordinate all DVRPC committee agendas.
4. Identify regional issues of significance through involvement with the DVRPC Board, staff, national and regional publications, journals, the media, the internet and other sources.
5. Conduct short-term research, including review of research by other agencies, as well as literature reviews, interviews, and analysis of regional impacts or implications and report the findings to the DVRPC Board and pertinent technical committees.
6. Review pending and proposed federal and state legislation, determine the effects on the region and draft proposed Board or staff position statements.
7. Attend conferences or meetings to coordinate with other agencies and organizations or to gather information for regional action.
8. Schedule meetings of the DVRPC Board and Executive Committee and provide agenda, minutes and meeting materials as needed.
9. Schedule meetings of the Board Policy Analysis Committee and provide agenda, minutes and meeting materials as needed.

Products:

- 1. Agenda, minutes and supporting materials as required.
- 2. Special policy reports, memoranda and correspondence as required.
- 3. Interim reports as appropriate.
- 4. Agendas and minutes of Board and Executive Committee meetings.
- 5. Agendas and minutes of Board Policy Analysis Committee meetings.

Beneficiaries:

All client groups.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$262,500	\$196,287	\$53,713	\$2,500	\$10,000
2021	\$292,500	\$218,750	\$61,250	\$2,500	\$10,000
2022	\$292,500				
2023	\$292,500				

*PennDOT FTA

PROJECT: 21-23-020 Work Program and Contracts Administration

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: John Ward

Project Manager: Barry Seymour, John Griffies, Sonia Lee

Goals:

To ensure intergovernmental coordination by preparing the annual work program, funding contracts, and monthly progress reports and provide technical assistance by administering the regional highway planning program and transit planning program.

Description:

Prepare contracts and monitor performance and progress of the FY2020-FY2021 Work Program. Prepare the draft and final FY2021 - FY2022 Planning Work Program and budget, negotiate project funding, and prepare and submit required applications and contract documents. Provide input to the Regional Forum and receive output from all projects. Prepare, administer, and provide technical assistance for contracts between DVRPC and PA/NJ member governments to advance regional highway planning and transit support planning at the local level.

Tasks:

1. Prepare monthly and quarterly progress reports, and conduct program review meetings for the FY2020-FY2021 Work Program. Monitor on a daily basis the implementation of the planning programs.
2. Prepare and complete funding contracts and agreements to implement the FY2020 - FY2021 Work Program.
3. Prepare the draft and final FY2021 - FY2022 Planning Work Program and project budgets based on guidance provided by the Board's Work Program Committee.
4. Assist agencies in work program and budget development.
5. Review documents and provide technical assistance.
6. Coordinate the TSP and SRHPP projects for inclusion into the Work Program and prepare agreements with member governments.
7. Prepare applications and contracts, and negotiate with federal, state and local governments to secure funding to carry out the planning programs.
8. Guide third-party consultant selection and assist in the preparation of documents required for consultant selection.
9. Establish accounting procedures and develop methods of progress and expenditure reporting.
10. Conduct sub-recipient monitoring and review audits of member governments prepared under 2 CFR 200.
11. Prepare closing report(s).

Products:

- 1. Contracts and agreements for the FY2020-FY2021 Work Program.
- 2. Monthly and quarterly progress reports and invoices.
- 3. Contract closing report(s).
- 4. Grant applications and contracts.
- 5. Special financial and internal management reports.
- 6. FY2021 - FY2022 Planning Work Program.

Beneficiaries:

Member governments and operating agencies.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$347,500	\$263,025	\$71,975	\$2,500	\$10,000
2021	\$347,500	\$261,719	\$73,281	\$2,500	\$10,000
2022	\$347,500				
2023	\$347,500				

*PennDOT FTA

PROJECT: 21-23-030 Public Participation, Involvement and Outreach

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Alison Hastings

Project Manager: Elise Turner

Goals:

To ensure intergovernmental coordination and community support by expanding public information, engagement, and participation activities, particularly by targeting audiences that will influence the implementation of DVRPC goals and programs. Maintain and expand outreach to all stakeholders in the Delaware Valley as per federal mandates.

Description:

The Office of Communications and Engagement will maintain and deepen its communications program, emphasizing DVRPC's mission to audiences both familiar and unfamiliar with the planning process; promote the Commission's Long-Range Plan and the implementation of the Plan through public involvement; and foster outreach and collaboration between DVRPC and the region's policymakers, municipal officials, organizations, and citizens. The Office of Communications and Engagement seeks opportunities at which staff can highlight the Commission's work, engage existing stakeholders, and reach new audiences.

DVRPC is a regional convener, and in-person meetings continue to be the most effective venue for public participation, shared learning, and consensus-building. This office regularly explores new ideas for both in-person and virtual meeting facilitation, community engagement, and stakeholder outreach. This office also administers public comment periods, and handles public comments, media requests, and records requests, and coordinates responses with DVRPC staff, Executive Office, legal counsel (if necessary), Board members, and project sponsors.

This office also ensures that Title VI, Environmental Justice (EJ), and other nondiscrimination mandates in public participation are met by conducting outreach to traditionally underserved populations in the region, and by enhancing Limited English Proficiency (LEP) options by providing translations, and making interpretation services available by request. To that end, this office is responsible for maintaining several guidance documents, including: the Public Participation Plan, Title VI Compliance Plan, and the Limited-English Proficiency Plan.

Tasks:

1. Prepare media releases and promote feature articles and op-ed pieces in traditional (i.e., newspapers) and non-traditional (i.e., blogs) media.

2. Use social media platforms (Facebook, Twitter, Instagram, LinkedIn, YouTube, etc.) to promote DVRPC news and public comment periods, engage partner organizations, and increase awareness of the Commission to the general public.
3. Prepare and publish Annual Report.
4. Monitor and report on DVRPC's earned media and social media.
5. Organize and convene Public Participation Task Force: update member handbook; set agendas; plan and facilitate meetings; manage membership; and provide highlights of meetings.
6. Administer public comment periods, issue legal notices, and advertise public meetings.
7. Coordinate special events and conferences that promote DVRPC's mission.
8. Participate in regional events and conferences in order to reach new stakeholders and members of the public.
9. Lead communications, stakeholder engagement, and public participation activities for DVRPC's federally mandated programs and projects, including the Long-Range Plan and the TIP; and support and advise staff with communications and outreach for other studies, plans, programs, and events.
10. Prepare newsletters and special communication pieces on timely issues.
11. Update and enhance DVRPC's website to optimize use and enable translations, promote specific events and publications, and make public information readily available; redesign and enhance Newsroom.
12. Assist Executive Office in managing relationships with stakeholders and coordinating strategic communications.
13. Assist staff with work product creation and distribution, and in particular HTML emails.
14. Respond to Public Comments, general inquiries from the public, and records requests as needed.
15. Review and evaluate public participation strategies, as necessary, to ensure effectiveness and outreach to a broad audience. Update public participation documents, such as the Public Participation Plan and Planner's Methodology, as needed, to reflect federal mandates and ongoing work at DVRPC.
16. Respond to presentation and media requests.
17. Respond to requests for translations, interpretation, and auxiliary services.
18. Plan and execute annual Board Retreat.
19. Document and evaluate DVRPC's use of public participation strategies on an ongoing basis.
20. Maintain several guidance documents, such as the Public Participation Plan, that inform DVRPC's practices.

Products:

1. Media releases.
2. DVRPC website, including redesigned Newsroom.
3. DVRPC monthly newsletters.
4. Annual Report.
5. Public Participation Task Force: handbook, orientation program, presentations, notices, agendas, and highlights.
6. Public Comment Periods, including Legal Notices.

- 7. Public Comments on Board Action Items packet.
- 8. Communications (e-mail blasts, social media, notices, brochures, select reports) to promote initiatives, completed projects, and public participation opportunities.
- 9. Translated materials, as needed.
- 10. Materials to be used and distributed at high profile events, including annual Board Retreat and conferences.

Beneficiaries:

Member governments, planning partners, the general public, and the private sector.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$342,500	\$259,099	\$70,901	\$2,500	\$10,000
2021	\$409,500	\$310,156	\$86,844	\$2,500	\$10,000
2022	\$409,500				
2023	\$409,500				

*PennDOT FTA

PROJECT: 21-23-040 Title VI and Environmental Justice

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Alison Hastings

Goals:

Implement Title VI of the Civil Rights Act of 1964 by ensuring that all residents of the Delaware Valley have opportunities to participate in the regional transportation planning process and are not discriminated against in the capital investment programming process. Ensure that Environmental Justice (EJ), as outlined by the 1994 President's Executive Order, and other nondiscrimination mandates, are considered in DVRPC's planning and outreach practices.

Description:

Title VI of the Civil Rights Act of 1964 states that no person or group shall be excluded from participation in or denied the benefits of any program or activity using federal funds. Environmental Justice (EJ) refines this concept by specifying the fair treatment and meaningful involvement of all people, regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations and policies. Fair treatment means that no group of people, including a racial, ethnic, or a socioeconomic group, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal or commercial operations or the execution of federal, state, local, and tribal programs and policies.

DVRPC's Office of Communications and Engagement (OCE) maintains, documents, and carries out the Commission's Title VI Compliance Program. This office routinely evaluates the Commission's: a) Public Participation Plan, b) Limited English-Proficiency Plan, c) Title VI Compliance Plan, and d) Indicators for Potential Disadvantage (IPD) analysis tool, and regularly explores the potential for other publications, brochures, and outreach tools. This office also advises commission staff in evaluating potential impacts of transportation projects on low-income and minority populations, evaluating accessibility and mobility for disadvantaged populations, and outreach techniques to reach diverse audiences. This program area also supports expanded outreach for DVRPC's mandated documents and processes in order to create opportunities for meaningful engagement in low-income and minority communities. This program fulfills translation and interpretation requests and proactively translates specific materials per the Commission's LEP Plan. This program area may analyze how specific demographic groups used in the IPD compliance tool have changed over time.

Tasks:

1. Maintain and update the DVRPC Public Participation Plan, Limited-English Proficiency Plan, and Title VI Compliance Plan and other publications related to DVRPC's efforts to create meaningful participation in the regional planning process.
2. Advise DVRPC staff on outreach to low-income and minority communities and

using the IPD analysis in projects, plans, and programs.

3. Explore potential for other analytical reports, data snapshots, and/or outreach brochures that advance DVRPC's Title VI and EJ program.
4. Work with DVRPC staff to monitor progress toward Title VI, EJ, public participation, and language access goals, and integrate equity throughout the commission's projects.
5. Undertake assessment of the benefits and burdens of programmed and proposed transportation system improvements, working within the LRP and TIP time-frames.
6. Train staff on an ongoing basis regarding Title VI/EJ strategies.
7. Complete responsibilities of the Title VI Compliance Manager, including carrying out investigations (if needed) and working with the Administration/Operations Division to review DBE goals.
8. Explore opportunities for EJ events for DVRPC stakeholders and the general public.
9. Participate in equal opportunity, nondiscrimination, and DBE training and committees offered by PennDOT, NJDOT, FHWA, FTA, or other planning partners.
10. Participate in any reviews conducted by state transportation agencies or other planning partners.
11. Regularly update the Indicators of Potential Disadvantage (IPD) compliance tool when new ACS data is released. Explore IPD and other mapping/technology strategies to enhance data gathering, public information, and analysis.
12. Continue to expand DVRPC's language access measures by responding to requests made through online request forms (among other ways), and managing the translation of the Commission's vital documents as identified in the LEP Plan.
13. Act as a resource for member governments, planning partners, subrecipients, etc. in meeting Title VI, EJ, and public participation mandates.

Products:

1. If needed, updated versions of: (a) DVRPC Publication Participation Plan; (b) Limited English Proficiency Plan; and (c) Title VI Compliance Plan.
2. Contact lists for community organizations and individuals who have expressed interest in Commission's public involvement and outreach activities, and community organizations that work with traditionally under-served communities and/or limited English proficiency individuals or groups.
3. Additional analyses and reports as needed.
4. Title VI/EJ Analyses assessing the benefits and burdens of TIP, LRP and other mandated documents.
5. Refined and updated Indicators of Potential Disadvantage (IPD) compliance tool.
6. Training materials, presentations, and documentation that on DVRPC's Title VI Compliance Program and EJ considerations.
7. Translated documents including the Commission's Public Participation Plan, Title VI Complaint Form, and other vital documents.
8. Supporting materials for any of the other tasks above.

Beneficiaries:

Greater Philadelphia residents, low-income and minority population groups, member governments, transportation agencies and operators, planning partners and

community organizations.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$222,500	\$164,881	\$45,119	\$2,500	\$10,000
2021	\$201,500	\$147,656	\$41,344	\$2,500	\$10,000
2022	\$201,500				
2023	\$201,500				

*PennDOT FTA

PROJECT: 21-23-050 Data Visualization and Communication

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Kimberly Dean

Goals:

To provide information and data to the public and decision-makers that is clearly understood and used, by applying graphic design and visualization techniques that explain and enhance the technical analyses and that presents materials in an attractive and accessible format.

Description:

Each year, DVRPC produces a wide array of products for a wide variety of audiences. There may be highly technical reports for a small expert audience; broader planning studies that are distributed to community groups and local officials; presentations made at conferences, meetings, and seminars; or information presented via our website, through social media, or in printed format that needs to be accessible and understandable to the widest possible audience.

By preparing information, data, reports and presentations that are clear, attractive, understandable and visually engaging, DVRPC is better able to reach our target audience and ensure that our findings and planning recommendations are both received and used. In particular, for planning studies that may address roadways, transit or bicycle and pedestrian facilities, the use of visualization techniques can illustrate a recommendation or proposal in a way far more effectively than just a written description. By providing specialized project graphics as part of our reports or presentations, decision-makers, community organizations, and citizens are able to fully understand the concepts and imagine the changes on the ground. In this way, all participants in the planning process are working from the same understanding, and are able to move forward toward a decision and implementation.

Some high profile projects that require specialized design include the DVRPC Long-Range Plan (LRP) summary document, the DVRPC annual report; both in print and interactive formats, board retreat materials, Transportation Improvement Projects (TIP) materials, and Unified Planning Work Program (UPWP) materials. Other programs that require specialized project graphics include, but are not limited to: Air Quality Partnership (AQP), Transportation Community Development Initiative (TCDI), Community and Economic Development (CEDS), Regional Transit Planning Program (RTPP), Public Participation Task Force (PPTF), Central Jersey Transportation Forum (CJTF), Delaware Valley Goods Movement Task Force (DVGMTF), Healthy Communities Task Force (HCTF), Regional Safety Task Force (RSTF), Futures Group (FG) and Futures Working Group (FWG), and Transportation Operations Task Force (TOTF).

Tasks:

1. Create materials for DVRPC programs, events, workshops, public outreach, and project studies.
2. Work with project managers, web developers, and GIS on providing graphic design materials.
3. Collaborate with partners, other MPOs, design and planning consultants, vendors, board members, as needed.
4. Provide ongoing design and technical assistance to DVRPC staff members.
5. Design report and PowerPoint templates for staff, and provide technical troubleshooting assistance, as needed.
6. Provide graphic resources for staff.
7. Perform graphic reviews of DVRPC publications, web products, board presentations, graphics and attachments displayed on DVRPC's webpages.

Products:

1. Supporting Graphics, including project graphic and design guidelines, headers, HTML emails, postcards, activity sheets / handouts, Word agenda templates, workshop materials, infographics, charts, Gmail-formatted emails, PowerPoint presentations, promotional materials, event signage, flyers, and posters.
2. Publication Design, including reports, newsletters, annual reports, brochures, handbooks, report cover and page layout design, high profile summary documents, and graphic review for DVRPC publication products.
3. Resources for Staff, including DVRPC logo files and guidelines, photo library, Word and InDesign report templates, DVRPC-branded memo and letterhead, PowerPoint Presentation templates, PowerPoint recommendations, and Word formatting tips & tricks.
4. Advertisements, including DVRPC ads, public transit advertisements, and animated web banners.
5. User Interface/User Experience Design, including design layouts of web pages, interactive web applications, interactive story maps, and monthly e-Newsletter. Also includes Emma emails and graphic review of DVRPC web products.

Beneficiaries:

DVRPC, DVRPC staff, the region, member governments, planning partners, and the general public

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2021	\$590,000	\$460,937	\$129,063		
2022	\$590,000				
2023	\$590,000				

PROJECT: 21-23-060 Web Development and Database Management

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: James Strangfeld

Project Manager: Elizabeth He, Marc Molta, Will Tsay

Goals:

To ensure the DVRPC's website is up-to-date and accessible. As the region's MPO, DVRPC, through our website, provides an immense amount of information and offers a wide variety of products and services.

Description:

DVRPC provides access to data, some original to the Commission, such as traffic counts, aerial photography and demographic forecasts. Some data is provided by our partners, including the US Census Bureau and other federal agencies. Accessing current, reliable, and relevant data is critical to planners and decision-makers. Web applications provide data visualizations and analysis not possible with traditional print products.

For more information, see the following website: <http://www.dvrpc.org>

Tasks:

1. Develop new designs and improvements for all content on DVRPC's websites using accessible web design practices.
2. Update website for Long Range Plan; TIP; transportation, land use and environment programs; commuter services; and the planning assistance center.
3. Create databases for Unified Planning Work Program (UPWP), all progress reporting, and other DVRPC datasets.
4. Create databases for project managers including programs such as TCDI and other direct projects.
5. Ensure that all content available on DVRPC's website is available to all end users via an accessible, mobile-friendly version. Accommodate all popular end user screen sizes, hardware, and scripting technologies.
6. Assist in data management, processing, and storage, such as efficient processing of large datasets, database design, and configuration for production environments.
7. Staff training in website development and responsive web design software, including Content Management Systems.
8. Coordinate with GIS and other departments to create custom mapping solutions with functionality beyond the scope of ArcGIS online and other off-the-shelf solutions.
9. Continuous innovation by modernizing the technology infrastructure, fostering an integrated, efficient environment based on cross-training and teamwork, and developing high-quality custom engineered solutions.
10. Administer and develop procedures for web product planning, development, review, and launch lifecycles. Implement quality control procedures ensuring high-quality and branded resources for all publically-accessible products and deliverables.
11. Develop automated systems to periodically run administrative tasks, process updated datasets, and/or supercede manual procedures.

12. Assist in the development of the TIM 3 Activity Based Model maintained by the Office of Travel Trends providing programming and debugging support.

Products:

1. Web applications, interactive GIS mapping applications, and online content for the DVRPC website.
2. Database of Progress Reports for program areas and project areas.
3. Project Management Database for TIP, Crash Database, Traffic Count, CMAQ, TCDI, TMA Quarterly Report, License Plate Data and various projects.
4. Development, management, administration, and training for enterprise Content Management System for website updates.
5. Custom solutions for staff and program areas to eliminate inefficiencies, automate processes, and increase workplace productivity.
6. Intranet resources for internal staff, management, and administrative functions, including internal portal, online forms, document libraries, and reference and training materials.
7. Tracking, review, and administration of web product development pipeline including project management, development process, launch release coordination, and promotion and outreach scheduling.
8. License plate recognition program to track and identify license plates and vehicles from a video feed. In addition to optical character recognition capabilities for reading license plates, the program will need to be able to identify the issuing state.
9. Tablet based surveying system for commodity cellular connected tablets. The survey software on the tablets will need to work both offline and online and opportunistically sync with a master server.

Beneficiaries:

State DOTs, member governments, transit operators, municipalities.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2021	\$870,000	\$679,687	\$190,313		
2022	\$870,000				
2023	\$870,000				

PROJECT: 21-23-070 Data Coordination and Analysis

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Kimberly Korejko

Project Manager: Benjamin Gruswitz, Christopher Pollard, Elizabeth He, James Strangfeld

Goals:

To further DVRPC's mission of "convening the widest array of partners to inform and facilitate data-driven decision-making." This will be achieved by creating and maintaining critical and innovative data resources in collaboration with our planning partners while providing key insights into the data through analysis, tool development, visualizations, and reports.

Description:

This program includes new and ongoing external data coordination activities. DVRPC will continue to strengthen relationships with its planning partners such as the state DOTs and transit agencies in an effort to streamline data sharing workflows as well as improve general information and knowledge sharing about agency datasets. DVRPC also serves as an affiliate member of Pennsylvania and New Jersey State Data Centers, which aim to promote Census Bureau datasets and activities. Along with Census products like the American Community Survey (ACS) and the Census Transportation Planning Package (CTPP), this program also includes reviewing and assessing other public and private data sources.

This program also supports the activities of DVRPC's Information Resources Exchange Group (IREG). IREG provides a forum to discuss the creation, use, and exchange of planning-related information in the region, and promotes knowledge sharing in the methods and technology for data analysis, synthesis, and presentation. For more information on DVRPC's IREG Committee, see: <http://www.dvrpc.org/Committees/IREG/>.

Finally, the Data Coordination and Analysis Program supports internal data coordination activities at DVRPC. These activities coordinate efforts and improve communication; aim to identify and support staff stewards of planning data to improve data development, maintenance, and sharing activities; and create a shared platform to develop and nurture new ideas, and pursue new efforts in a more strategic way.

Completion of this work may require the purchase of equipment or services.

Tasks:

1. Coordinate and communicate with member governments, transit agencies, state

and federal agencies, and other traditional partners, while seeking new partnerships where appropriate to maintain and improve communication and information sharing about agency data.

2. Continue to foster data sharing strategies through the development of memoranda of understanding with appropriate agencies and exploring shared data/tool purchases.
3. Continue to oversee and administer the existing IREG and participate in other ad-hoc committees of DVRPC member governments, as appropriate, to facilitate the coordination of data acquisition, processing, and distribution.
4. Participate as affiliates of the New Jersey and Pennsylvania State Data Centers.
5. Participate in and promote Census Geography update processes and products.
6. Disseminate Census-related data through DVRPC internal and external resources.
7. Produce Data Bulletins and Analytical Data Reports for new releases of ACS, CTPP, and other Census-related products, along with other sources.
8. Develop and oversee agency wide data coordination activities and adherence towards a formal data management framework and data life cycle practices.
9. Create and enforce metadata standards that support the data management framework.
10. Identify data gaps and needs on an ongoing basis.
11. Research, evaluate, and acquire new data resources as needed to support agency planning activities.
12. Identify opportunities to improve data quality and standardize how data quality is measured.
13. Coordinate special data improvement, data sharing, or data tool development efforts that require interdepartmental collaboration.
14. Create a plan to ensure documentation of available data and publication of DVRPC datasets.
15. Develop, improve, and update datasets that support planning efforts at DVRPC such as NETS, CoStar, and other regional data resources.
16. Continue to develop strategies for and manage internal Data Round Table and Data Innovation Teams.
17. Continue to improve how data is shared by DVRPC through its online resources.

Products:

1. Meeting materials and records for the IREG committee and subcommittees.
2. Regional data bulletins, analytical data reports, data snapshots, and other summaries and analyses of available information.
3. Documents related to inventory and lifecycle of datasets for internal use.
4. Meeting materials and records for the Data Round Table and Data Innovation Teams.
5. Internal data search tool.
6. Catalog of data products that DVRPC publicly shares.
8. Additional materials as appropriate.

Beneficiaries:

All client groups.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$406,250	\$314,060	\$85,940	\$1,250	\$5,000
2021	\$366,250	\$281,250	\$78,750	\$1,250	\$5,000
2022	\$366,250				
2023	\$366,250				

*PennDOT FTA

PROJECT: 21-31-010 Geographic Information Systems

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Mark Gatti

Project Manager: Christopher Pollard

Goals:

Improve planning efficiency and provide support for better-informed planning and engineering project decisions in the region by developing, maintaining, and improving access to accurate and current geospatial data.

Description:

A Geographic Information System (GIS) is an important planning tool that provides benefits to DVRPC, its member agencies, and others by supporting state, regional, county, and local planning and technical projects. Nearly all projects incorporate GIS technology, whether it is for data collection and storage, or analysis and presentation.

This ongoing program enables DVRPC to provide GIS services and technical assistance to its planning staff, our member agencies, and other outside parties. It also includes expanding and improving the geospatial database by creating features and attributes from compiled source documents and obtaining data from member governments and operating agencies and publicly available sources (US Census, NJDEP, PASDA, etc.). Enhancements to existing geospatial data will include the expansion and refinements of attributes and the improvement of the positional accuracy of features. DVRPC shares its GIS data with member governments and operating agencies, DOTs, and the public in both static and digital format through our website. Through our GIS Data Portal, users can view, download, or link to selected data in various GIS or non-GIS formats. We also convey GIS information as interactive maps and applications that allow users to further explore these datasets using only their web browser. Technical advances and methodologies to provide geospatial information in an efficient manner will continuously be reviewed.

This program will be coordinated with other data development efforts ongoing at DVRPC as well as efforts at member governments and agencies in the region and with other federal and state efforts whenever possible.

Completion of this project may require the purchase of equipment or services.

Tasks:

1. Create new geospatial data from source documents.
2. Compile and evaluate existing geospatial data from all available sources.
3. Geo-reference existing features to current aerial imagery.
4. Develop and maintain metadata that meets current industry standards for all geospatial datasets.

5. Provide access to geospatial data from DVRPC programs and from external sources, including, but not limited to, the state DOT transportation management systems, U.S. Census, state agencies, operating agencies, and member governments.
6. Ensure compatibility of geospatial data with related databases.
7. Provide data files and technical support to planning efforts of DVRPC, state agencies, county planning organizations, operators, and the private sector, as requested.
8. Coordinate data development with other DVRPC programs and federal, state, and local efforts, whenever possible.
9. Attend training, seminars, and conferences to keep current on the latest industry trends.
10. Expand geospatial data sharing and distribution using current web technologies.
11. Develop and maintain web mapping applications in support of DVRPCs outreach goals.
12. DVRPC will also coordinate with PennDOT, the counties, and cities on the collection and validation of local transportation asset data.
13. Perform activities associated with the local transportation asset inventory.
14. Maintain 2015 land use data and prepare for 2020 land use update.
15. Produce high quality cartographic products for DVRPC programs and planning efforts.

Products:

1. Current, accurate, and comprehensive geospatial database.
2. Metadata that meets industry standards for all geospatial data.
3. Geospatial features consistent with current imagery, when applicable.
4. Enhanced enterprise database that includes geospatial data from DVRPC, member governments and operating agencies, DOTs, and other sources.
5. GIS data shared amongst member governments and operating agencies, DOTs, and the public through web technologies.
6. Updated and new web mapping applications.

Beneficiaries:

All client groups.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$380,000	\$298,357	\$81,643		
2021	\$334,400	\$261,250	\$73,150		
2022	\$334,400				
2023	\$334,400				

PROJECT: 21-33-010 Smart Growth

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Karin Morris

Project Manager: Andrew Svekla, Derek Lombardi, Elizabeth Compitello, Karen Cilurso

Goals:

To undertake smart growth studies, programs, and technical assistance, as well as to ensure communication and coordination among agencies in the region involved in creating and maintaining livable communities. To increase the level of education and outreach on smart growth principles to member governments and the public.

This project supports PennDOT's Planning Priorities of "Land Use / Transportation Linkages/Economic Development/Modernization," specifically (B) to "identify livability, sustainability, and resiliency planning strategies to tie the quality and location of transportation facilities and services to broader opportunities such as; access to employment opportunities, affordable housing, quality schools, safe streets, economic development, social equity, and environment conservation," and E to "provide input on any training and planning activities targeted to county and local governments, conservation districts and community stakeholders," on topics such as Smart Growth, Complete Streets, implementation tools, transit-oriented development, and healthy community.

This project supports NJDOT's planning priorities of promoting Transportation Demand Management (TDM), maximizing opportunities for Complete Street implementation, encouraging greater coordination in mobility and land use planning, and supporting NJDOT's Transit Village Initiative and other Smart Growth strategies. This project continues to support FHWA-NJ Division's Planning Emphasis Areas of regional coordination on opportunities related to livability, and ladders of opportunity/access to essential services (housing, employment, health care, schools, and recreation).

Description:

The Smart Growth work program will continue DVRPC's work on linking land use and transportation planning, while also incorporating outreach, education, coordination, advocacy, and overall support for smart growth and livable community principles. This program is designed to help our planning partners better understand the potential local and regional implications of various land uses, development types, and travel patterns. This program also supports the agency's ongoing efforts to promote Smart Growth principles related to transit-oriented development, age-friendly communities, zoning reform, land preservation, urban revitalization, economic development, and climate change resiliency.

Staff will update DVRPC's Smart Growth Project Database web mapping application

once in FY21 and facilitate discussion with internal staff and external stakeholders to determine potential revisions to the application's purpose, layout, and/or function.

Staff will continue to coordinate the Regional Streetlight Procurement Program (RSLPP). FY2021 work includes management of the round 2 RSLPP through construction and post-construction operation and maintenance services for the 26 participating municipalities.

Staff will continue to develop additional aggregate procurement opportunities around energy and support other DVRPC departments in support of other non-energy aggregation procurement efforts done at the regional level, ensuring municipalities and counties have the technical support and resources they need to execute contracts, coordinating with project partners, and assuring that all phases of the project are completed to the benefit of municipalities and counties. This work may require the hiring of a technical consultant(s).

Staff may also continue to provide technical assistance to municipalities on their efforts to support renewable energy and energy efficient development in their communities. This work may include the development of renewable energy ordinances and permitting processes, support for Solarize campaigns, and engaging the local utility.

Staff will research strategies and best practices related to preservation of cultural heritage in Philadelphia and other communities throughout the region. The cultural heritage of the various neighborhoods and communities that comprise Greater Philadelphia reflect historical immigration patterns and play an invaluable role in shaping the region's social and economic fabric. The cultural heritage of a place consists of a combination of traditions, business, arts, and practices that have come to define a community and contribute to its unique sense of place. In the face of development pressure and demographic changes, some cities are exploring strategies designed to safeguard the historical, social, and economic value of its culturally-significant neighborhoods and communities. During this study, staff will work with the Philadelphia City Planning Commission to identify and evaluate potential strategies that can be used to preserve tangible and intangible aspects of cultural heritage.

Staff will assist the Office of Long Range planning and the development of the Connections 2050 Long Range Plan by drafting report text and providing feedback on elements related to livable communities such as land use, development, urban design, etc.

Staff will continue to assist stakeholders understand the findings and implement the recommendations of two recently-completed studies: Community Impacts of Multifamily Development and SEPTA TOD Policy Research. Staff will continue to make presentations to interested stakeholder groups and serve as a technical resource for communities interested in discussing the zoning and regulatory

implications of DVRPC's multifamily research. Based on TOD policy research conducted for SEPTA, staff will continue to advise the agency as it attempts to enhance organizational support for TOD at and near its stations.

Staff will continue to collaborate on ongoing interdepartmental research initiatives related to tactical urbanism and regional bike share coordination.

Staff will continue to offer technical assistance and promotion of smart growth principles to national, state, regional and local partners, including such initiatives as the NJDOT Transit Village Task Force, Sustainable NJ committees, AARP Livable Communities Network, Age-Friendly West Philly task force, Delaware Valley Smart Growth Alliance, and the Urban Land Institute Philadelphia Chapter Councils.

Completion of this project may require the purchase of equipment or services.

Tasks:

1. Update the Smart Growth Project Database and consider how it can be revised to better serve the needs of DVRPC and its planning partners.
2. Manage ongoing RSLPP through construction and post-construction services for 2 communities.
3. Assist municipalities and counties in other energy and non-energy related regional procurement efforts.
4. Continue to provide technical assistance to municipalities throughout the region on renewable energy ordinances, permitting, and Solarize campaigns, as needed and as budget allows.
5. Inventory strategies and policies designed to preserve the cultural heritage of neighborhoods and communities in Greater Philadelphia.
6. Continue to support the implementation of recommendations from recently completed Office of Smart Growth studies related to multifamily development and transit agency TOD policy.
7. Assist with research on the emerging topics of tactical urbanism and regional bike share coordination.
8. Provide technical assistance to numerous partners on various Smart Growth and livable community efforts.
9. Present and promote DVRPC's smart growth studies and products to local, regional, and national audiences, through workshops, seminars, conferences, etc.

Products:

1. Updated Smart Growth Project Database and related promotion.
2. Meeting highlights, PowerPoints, evaluation, guidebooks, or other technical assistance from RSLPP.
3. Technical assistance and resources related to regional procurement opportunities and practices, energy management, and renewable energy development.
4. Cultural heritage case studies and planning resources.
5. Updated data, analysis, and presentations in response to stakeholder needs.
6. Smart growth presentations at local, regional, and/or national conferences and workshops.

Beneficiaries:

Member governments, DOTs, transit agencies, private sector, and nonprofits.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$690,000	\$427,907	\$117,093	\$45,000	\$100,000
2021	\$633,500	\$362,109	\$101,391	\$70,000	\$100,000
2022	\$633,500				
2023	\$633,500				

*PennDOT FTA

PROJECT: 21-33-020 Community and Economic Development

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Karen Cilurso

Project Manager: Andrew Svekla, Karin Morris

Goals:

To support the key policies of Connections 2045 by ensuring a diverse and competitive regional and local economy by encouraging reinvestment in the region by coordinating regional transportation, land use, redevelopment, and economic development cooperation.

This program area addresses the planning issues identified in the FAST Act, specifically by supporting the economic vitality of the metropolitan area by promoting consistency between transportation improvements and state and local planned growth and economic development initiatives; improving the regional freight network to expand access to national and international trade markets; ensuring equitable and efficient multimodal transportation options with respect to travel and tourism activities; and supporting local and regional economic development.

The Community and Economic Development program area supports PennDOT's Planning Priority (IV) Land Use/Transportation Linkages/Economic Development/Modernization, specifically (B) to identify livability, sustainability, and resiliency planning strategies to tie the quality and location of transportation facilities and services to broader opportunities, such as access to good jobs, affordable housing, quality schools, safe streets, economic development, social equity, and environmental conservation.

This program supports NJDOT's support of the NJ State Strategic Plan, whose vision is for sustainable physical economic development. Additionally, this megaproject supports NJDOT's MPO Transportation Priorities, including promoting partnerships and maximizing opportunities for Complete Streets implementation. The work through the Community and Economic Development program also supports NJDOT's MPO Priorities by continuing to engage with the public to strengthen public confidence and participation in the planning process through the use of web/technology, social media, outreach, education, and public forum meetings and working with county and municipal partners for integration of transportation and land use to promote community livability. This project supports the New Jersey Statewide Long Range Transportation Plan.

Description:

At the regional level, staff will continue to lead, participate, and support economic development investment strategies in the region; including managing and maintaining the region's Comprehensive Economic Development Strategy (CEDS), as required by the US EDA. Tasks will include completing and submitting the CEDS annual update to EDA; amending the list of vital projects as appropriate; assisting in grant applications to EDA; and working with regional partners to identify how to best advance the CEDS goals. To continue to comply with EDA guidelines, staff will

explore the development of a new vulnerability index (online dashboard) that measures how the region will fare if faced with a major economic downturn caused by natural events, loss of a major employer, or international trends. Staff will engage and build partnerships with US EDA and other economic development practitioners. Additional activities may include convening economic development partners for project development and reaching out to county partners outside of the DVRPC service area. Additional CEDS work will include continuing workforce development engagement with the transit industry, or another particular industry (TBD). This work may include the use of an outside consultant. Staff will also continue to maintain the economic development project database and add projects as they are received.

As part of economic development coordination, staff will hold meetings of the Regional Community and Economic Development Forum (RCEDF). The RCEDF facilitates networking and coordination between the region's transportation, economic development, and land use planning professionals on issues of regional importance; fosters greater cooperation between agencies; and strives to coordinate regional transportation and land use planning activities with the needs of the economic development community.

Analyses of socioeconomic, land use, and economic data will provide the basis for the online dashboard and CEDS performance measures. This work may include a series of data snapshots for identified sectors (CEDS), data bulletins on specific census information, and economic cluster analysis. Staff will continue to identify the impact of immigration to Greater Philadelphia and how this may affect the workforce. Staff will also begin work on updating the Rating the Region report, which compares the Greater Philadelphia region to other regions based on a variety of factors. This is a two year effort with a deliverable slated for FY 22.

As required through the FAST Act, staff will write the economy section of the updated 2050 long range plan. This will be done with the assistance of the long-range planning department.

Staff will identify livability and sustainability strategies to tie the quality and location of transportation facilities to accessibility of tourist destinations, and employment. Tasks for FY 21 include working with local communities to make better use of their tourist destinations, developing strategies on heritage tourism, and convening tourism stakeholders in the region.

Since many of the region's mature communities face social, economic, transportation (motorized and nonmotorized), and infrastructure challenges uncharacteristic of more affluent exurban communities, staff will continue community revitalization efforts that strive to implement the goals of Connections 2045 and enhance livability at the local level.

In an effort to understand the evolving retail sector and downtown development, the 2013 online retail tool that highlights suburban retail districts will continue its evolution for users and constituents by reevaluating downtown criteria and Greyfield (shopping centers) status. In addition to addressing greyfields, staff will evaluate brownfields in the region by developing education and outreach efforts that facilitate brownfield clean-ups. Staff will also develop strategies to promote affordable housing near transit to promote affordable livability.

Staff will promote outreach with local partners and stakeholders through educational

events and workshops. These events provide professional credits for AICP members. Staff will continue DVRPC's Breaking Ground Conference Series. Breaking Ground brings together planning partners to highlight successful implementation projects.

Administration of the Transportation and Community Development Initiative (TCDI) grant program will continue in FY 2021. A round of new project sponsors will start in July. Grant administration includes maintaining TCDIdirect (project management) database, communication and coordination with DVRPC administration, attending meetings as necessary and filling out progress report.

Tasks:

1. Identify and engage local stakeholders and community leaders, as well as provide local technical assistance to communities on revitalization strategies through educational events and workshops.
2. Administer the TCDI program.
3. Maintain TCDIdirect.
4. Develop deliverable for tourism tasks including an updated stakeholder list.
5. Work with the CEDS Review Committee to evaluate indicators to measure the CEDS goals.
6. Maintain the CEDS webpage with current data.
7. Conduct meetings (as necessary) of the CEDS committee to review projects proposed for inclusion on the CEDS list of vital economic development projects, and amend the list as appropriate.
8. Investigate and implement economic development performance measures dashboard.
9. Convene up to 3 meetings of the Regional Community and Economic Development Forum (RCEDF).
10. Develop new section on economy for the 2050 plan.
11. Develop updated criteria for Greyfields.
12. Update greyfields database.

Products:

1. Deliverable products as required by each TCDI contract.
2. TCDIdirect database.
3. Technical memo on tourism topic for the region.
4. Minutes of CEDS committee meetings and amendments to the CEDS, as necessary.
5. Key Regional Economic Development Project Database
6. The CEDS annual review and update (online).
7. Additional memos or products as requested by US EDA (as it pertains to our pending Economic Development District (EDD) status).
8. Highlights from Regional Community and Economic Development Forum (RCEDF) meetings.
9. Data updates on census information.
10. Cluster Analysis and report.
11. Breaking Ground Conference

12. Economy Section of 2050 plan.
13. Data bulletins d/aor snapshots, as requested.
14. CEDS performance measures dashboard (online).
15. Greyfields database.

Beneficiaries:

Member governments, nonprofits, developers, the private sector, economic development professionals, and planning professionals

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$577,500	\$251,248	\$68,752	\$22,500	\$235,000
2021	\$543,500	\$207,812	\$58,188	\$42,500	\$235,000
2022	\$543,500				
2023	\$543,500				

*PA TIP - MPMS #97311 - \$120,000 STU/Toll Credit Match for TCDI Administration
 PennDOT FTA - \$10,000 NJ TIP - DB #D0204 - \$105,000
 STBGP-PHILA for TCDI Administration

PROJECT: 21-33-030 Energy and Climate Change Initiatives

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Robert Graff

Project Manager: Shawn Megill Legendre

Goals:

Provide leadership to the region on energy and climate change issues, including

- increasing the resilience of the region to the impacts of extreme weather
- reducing energy use
- shifting energy use to low or no-carbon sources, and
- reducing greenhouse gas (GHG) emissions.

A key focus of this work will be on energy use, greenhouse gas emissions, and increased resilience as they relate to vehicles, transportation infrastructure including mass transit, and the built environment. This includes shaping the transition to an increasingly electrified transportation system.

- Encourage and support municipal, county, regional, state, and transit agency officials in developing policies and practices to respond to the ongoing and projected impacts of climate change.

- Encourage and support municipal, county, regional, state, and transit agency officials in developing policies and practices to reduce energy use and GHG emissions in their activities and operations.

- Develop and disseminate information on the projected impacts of climate change within the region, as well as how to prepare for those impacts. This information will be provided at the local and sectoral level where feasible.

- Develop and disseminate information on regional energy use, energy costs, and GHG emissions. This information will be provided at the local and sectoral level where feasible.

- Continue to represent DVRPC's regional/MPO perspective at appropriate policy venues, including PA and NJ state committees/meetings and TRB-related activities.

- Facilitate regional coordination by drawing on and strengthening relationships among state, regional, county, and municipal officials throughout the region, as well as relationships with other key stakeholders, including transit authorities, utilities, businesses, institutions, and non-profit organizations. This work will foster continued cooperation and coordination across MPO and state boundaries where appropriate to ensure a regional approach to addressing these issues.

Description:

This program area leads planning efforts to prepare the region for the ongoing and anticipated impacts of climate change on the built and natural environment. In addition, it seeks to promote greater energy efficiency, cleaner energy, and lower greenhouse gas emissions within the region.

This program area supports the goals of the State of New Jersey's Global Warming Response Act (2007) of reducing GHG emissions by 80 percent of 2006 levels by 2050. It also supports Pennsylvania's 2018 Climate Change Action Plan, Governor Wolf's Executive Order 201-01 "Commonwealth Leadership in Addressing Climate Change and Promoting Energy Conservation and Sustainable Governance", as well energy use, GHG emissions, and regional resilience goals of DVRPC's Long-Range Plan. It will also support the USDOT FAST Act Resilience Performance Factor, and transportation electrification goals of both Pennsylvania and New Jersey.

Climate change influences the design, construction, safety, operations, and maintenance of transportation infrastructure and systems. Extreme weather events such as Hurricane Irene and Superstorm Sandy have illustrated how vulnerable the region's transportation infrastructure is to violent storms. As global temperatures increase, the sea level rises, riverine and nuisance flooding increase, the risk to the region's transportation system will continue to increase. The stewards of the region's infrastructure will be challenged to consider how these changes may affect the region's roads, airports, rail, transit systems, and ports, as they endeavor to assure the transportation system's resilient connectivity to essential services. In addition, the changing climate has broader implications for the region's stormwater systems, land use decisions, and the natural environment. These impacts affect a wide range of county and municipal functions, including public health and stewardship of the natural world.

Energy use and greenhouse gas emissions are closely related issues: DVRPC's report on regional greenhouse gas emissions in 2015 shows that 88 percent of the region's GHG emissions are attributable to burning fossil fuels for energy. Energy use by the transportation sector (motor vehicles, trains, planes, ships, and other mobile applications) accounted for more than 26 percent of the region's energy use, and 31 percent of its GHG emissions. Essentially all of the energy used for transportation is petroleum imported into the region.

The energy system in the region and the country as a whole is undergoing a profound transformation, with increased private and public investment in energy efficiency and conservation as well as in zero-carbon, renewable, and lower-carbon energy sources for both the transportation sector (e.g., electric vehicles, natural gas vehicles, public transit investments) and for stationary energy use (e.g., buildings, industry). The use of natural gas to generate electricity is displacing coal at a very rapid pace, reducing the GHG intensity of electricity. And renewables, such as solar, are gaining share. In addition, concern regarding the long-term availability and cost of fossil fuels, as well as the implications of natural gas production in Pennsylvania, shapes the activities of this program area.

In addition, recent years have seen tremendous growth—albeit still at a low level—in the use of electricity in transportation. This includes private passenger vehicles, public transit buses, and delivery vehicles. This transition to electrification of the transportation sector presents a wide range of planning challenges.

Tasks:

1. **Coordination and Facilitation**—Facilitate coordination and discussion among partner organizations within the region. Participate in relevant local, regional, state, and national efforts related to alternative fuel vehicles, energy-efficiency and conservation, GHG emissions reduction, and preparing for the impacts of climate change on transportation infrastructure, including mass transit infrastructure, and other public goods. Continue to work with local governments, state and federal agencies, neighboring MPOs, and partner organizations such as transit agencies in the region.

2. **Climate Adaptation Forum**—In coordination with the Office of Environmental Planning (21-33-040), continue to organize and produce the Climate Adaptation Forum, an ongoing series of half-day workshops, taking place about three times per year. The CAF brings together professionals currently engaged in preparing for climate change, and one or more professionals presenting on their current activities related to addressing a particular climate change adaptation issue.

3. **Information Collection and Analysis**—Continue to develop and disseminate information on regional energy use, energy costs, and GHG emissions, as well as opportunities for reducing energy use, energy costs, and GHG emissions, at the state, local, and sectoral level. This will include data collection in preparation for the 2020 Regional GHG and Energy Use Inventory.

4. **Technical Assistance: Climate Change Adaptation Planning**—Continue to assist local government stakeholders and transit agencies in understanding and preparing for the expected impacts of climate change on the region, including providing information on projected impacts on the region's transportation infrastructure, municipalities, residents, and businesses. This work will include outreach using DVRPC's Municipal Implementation Tool #31 "Municipal Management in a Changing Climate," together with use of the role-playing game "The Game of Extremes," which has been used by DVRPC in past outreach efforts to municipalities. Assist in developing strategies to increase resilience and adapt to changing climate conditions.

5. **Technical Assistance: Impact Analysis**—Continue to assist member governments and others in assessing policies and actions appropriate at the regional, county and municipal level in order to identify the most appropriate set of responses from among the many alternatives to reduce energy use and GHG emissions primarily in the transportation sector, including those related to electric vehicles. This selection requires rigorous analysis of the reduction impacts, cost-effectiveness, feasibility, energy savings, and other associated benefits and costs associated with the various

options. The recently completed DVRPC/UC Davis EV Planning Toolkit will be a key tool for this effort related to electric vehicle charging infrastructure planning. This may include regional energy transition planning.

6. Scenarios and Modeling—In coordination with DVRPC's Office of Long-Range Planning (21-34-010), model future regional energy use and GHG emissions scenarios and develop tools for use by individuals, organizations and regional partners to help decision makers envision the relative GHG emission and energy use impacts of various planning and policy actions, including those of electric vehicle charging infrastructure.

7. Review Place-Based Planning Projects for Climate Change Impact Preparedness—On a pilot basis, select a small number of relevant place-based planning projects carried out by other DVRPC offices to test the value of reviewing such projects for climate impact preparedness.

8. Coordination with other DVRPC Activities on GHG/Energy Use Reduction—GHG emissions and energy use are affected by many activities in which DVRPC is engaged. This project will continue to coordinate a broader public message that links the related issues of energy, air quality, cost-savings and climate change through DVRPC's ongoing programs.

9. Coordination with other DVRPC Activities on Preparing for Impacts of Climate Change—The impacts of climate change affect many activities in which DVRPC is engaged. This project will work with other DVRPC offices to assure relevant impacts of climate change are taken into account.

10. Technical Assistance: Additional Sectors – DVRPC recognizes that other public sector organizations, such as school districts, have tremendous opportunities for energy savings as well as to prepare for the impacts of climate change. DVRPC is prepared to begin a discussion with these sectors to identify ways to adapt and disseminate technical tools we have developed to these sectors, particularly as related to electric school buses.

Completion of these tasks may require the support of consultants.

Products:

1. Day-long workshops in Burlington, Camden, Gloucester, and Mercer Counties, New Jersey on integrating the projected impacts of climate change into hazard mitigation planning. These workshops will incorporate the resources from the Municipal Management in a Changing Climate MIT, The Game of Extremes, The Coastal Effects of Climate Change Story Map (from the Office of Environmental Planning) and will be coordinated with FEMA's Hazard Mitigation Planning resources.

2. Climate Adaptation Forum. This on-going series of DVRPC-hosted, half-day workshops brings together regional professionals currently engaged in preparing for climate change. DVRPC intends to host three such workshops in FY 2021, in

coordination with the Office of Environmental Planning.

3. Carry out a Countywide EV Charging Infrastructure Analysis for Camden County. This analysis will use the EV Planning Toolkit developed in coordination with the Plug-in Hybrid & Electric Vehicle Research Center at UC Davis that models the spatial evolution of electric vehicles.

4. Documents, website pages and on-line tools to support planning for the growth in the number of electric vehicles, including use of the EV Planning Toolkit developed in coordination with the Plug-in Hybrid & Electric Vehicle Research Center at UC Davis that models the spatial evolution of electric vehicles.

5. Updated website pages and on-line tools to disseminate and support the results of the 2015 Regional Energy Use and GHG Emissions Inventory.

6. Continued provision of support tools (e.g., MITs, webinars, workshops) for municipalities and others on preparing for climate change adaptation.

7. Continued integration of energy use and GHG emissions analysis into DVRPC planning documents.

8. Contributions to local, regional, state, and national efforts to reduce energy use and greenhouse gas emissions, and to build resilience in preparation for climate change. These will include written comments on documents, active participation in meetings, and recommendations for actions. Efforts supported include Drive Electric PA Coalition, the PA DEP Climate Change Advisory Committee, as well as any support needed for the USDOT's FAST Act Resilience Performance Factor, and PennDOT's Extreme Weather Vulnerability work.

9. Products related to technical assistance efforts mentioned in tasks will be determined at beginning of fiscal year.

Beneficiaries:

Member governments; DVRPC planning professionals; state and federal agencies; transit authorities, municipal officials; and citizens.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$370,000	\$163,571	\$44,760	\$61,669	\$100,000
2021	\$333,250	\$134,032	\$37,529	\$61,689	\$100,000
2022	\$333,250				
2023	\$333,250				

*PennDOT FTA

PROJECT: 21-33-040 Environmental Planning

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Christopher Linn

Project Manager: Amy Verbofsky, Melissa Andrews, Shawn Megill Legendre

Goals:

This program area will:

Provide leadership to the region on maintaining healthy ecological systems, protecting water quality, creating livable communities, incorporating a comprehensive and connected network of facilities for bicyclists and pedestrians into the current transportation system, and preparing the region to adapt to the predicted impacts of climate change.

- Increase the level of education and outreach on sustainability planning principles to member governments and the public.
- Develop and disseminate information on green infrastructure, growth management, land preservation, watershed protection, active transportation, and climate change adaptation.

The program will also promote the following goals of PennDOT, NJDOT, and FHWA:

- Support commuting alternatives to single occupancy vehicle (SOV) travel to maximize the efficiency of the existing transportation system.
- Identify livability and sustainability strategies to tie the quality and location of transportation facilities to broader opportunities such as access to good jobs, affordable housing, quality schools, safe streets, economic development, social equity, and environmental conservation.
- Implement the Program Development and Project Delivery Process to make the best use of available transportation funds and improve project implementation.
- Provide transportation choice and efficient mobility of goods.
- Support land use patterns that promote accessibility, sustainable mobility and transportation choices.
- Incorporate environmental stewardship principles into transportation investments.
- Maximize opportunities for Complete Streets.
- Expand use of management systems and data-driven tools to inform investment decisions.
- Conduct planning studies with the goal of using findings to develop problem statements.
- Streamline the environmental review process.
- Identify, implement, and assess programs and strategies to adapt to and mitigate the impacts of climate change.
- Support sustainable growth patterns, and consider all modes of transportation.

Description:

This program area will lead planning efforts to build a sustainable region by maintaining and improving environmental quality, creating new opportunities for active transportation, and making the region more resilient to climate hazards.

Issues addressed include land use, water quality, hazard mitigation and flooding, natural resources, open space preservation, climate change resiliency, active transportation and multi-use trails. To the degree appropriate for a given task or project, work will be approached in an integrated way, drawing on staff expertise across DVRPC offices and partner agencies to best achieve desired outcomes.

The project includes the following components:

- Coastal Resiliency Story Map – Expand the existing PA Coastal Resiliency Story Map (completed in November 2019) to the New Jersey Side of the tidal Delaware River. The structure of the overall Story Map will remain consistent, but the data layers will be expanded to cover all communities affected by tidal waterways in NJ. This work kicked-off in FY20, and will roll over into FY21 for completion.
- NJ Stormwater Utilities – Assist municipalities in New Jersey with Stormwater Utilities/Fees by making them aware of existing resources and by coordinating with experts knowledgeable in both Stormwater Utility creation and New Jersey’s newly established Stormwater Utility rules.
- Pennsylvania Trail Mapping – Work with the Pennsylvania counties to lay the groundwork for a comprehensive regional trail inventory. This work will build on the New Jersey Regional Trail database and map developed in FY2020. The ultimate goal of the project will be to inventory and map all established, formal trails in the region, regardless of length, surface or facility type. DVRPC will begin discussion with the Pennsylvania counties to acquire and assess existing data and establish common frameworks and standards for attribute data, i.e., surface type, ownership, trail condition, width, etc. This mapping effort will expand upon trails currently mapped as part of the "Circuit", which is composed almost exclusively of regionally-significant, multi-use trail spines.
- Open Space Inventory – Update the 2016 inventory of protected public and private open space lands in support of the 2050 long-range plan. Update the inventory of locally funded open space programs in May and November, post primary and general elections. Publish this information on the DVRPC website including maps, tables and narrative.
- Regional Environmental Planning – Work with willing partners and build upon on-going efforts to support land conservation, water quality improvements and green infrastructure through projects, programs and plans. Incorporate this work into the long-range plan, corridor studies, land use and transportation studies, and the PennDOT Connects Process. Focus on helping the region minimize and mitigate the impacts of transportation infrastructure on environmental resources, and promote improved stormwater management practices through strategies like the implementation of Stormwater Utilities mentioned above. Data gathered and tools developed will be used to strengthen the linkages between environmental stewardship and transportation investments, and streamline the environmental review process. In addition, as requested, assistance may be provided to counties

to produce Return on Environment reports, which quantify the economic value of protected open space, including seeking outside funding support.

- **Municipal Environmental Planning – Continue Environmental Resource Planning Services** for local governments to assist communities with the preparation of environmental resource inventories, open space plans, municipal public access plans, master plan conservation elements, farmland preservation plans, sustainability plans, etc., with the aim of improving land preservation and environmental quality at the local level. The program is fee-based, but DVRPC can provide a subsidy to communities in Mercer, Burlington, Camden and Gloucester counties to encourage more municipalities to undertake the work.
- **Climate Change Resiliency Initiatives**—The Office of Environmental Planning (OEP) will continue to participate in ongoing climate change resiliency efforts at the national, state, and local level to assure the concerns of the region are represented. Environmental Planning staff will continue to participate on the Leadership Committee of the New Jersey Coastal Resilience Collaborative, help organize DVRPC’s Climate Adaptation Forums, work with PA DEP to develop Pennsylvania’s coastal resilience planning program, and continue working with PennDOT and NJDOT to improve the resilience of transportation infrastructure against the impacts of extreme weather.
- **Trail and Greenway Planning**—Support the region’s efforts to implement the Circuit regional trail network, the East Coast Greenway, and other local active transportation initiatives by providing technical assistance, coordination, planning services, evaluation metrics, and by assisting PennDOT, NJDOT and trail sponsors with federal/state trail funding opportunities and the overall Program Development and Project Delivery Process to insure that projects are ultimately completed on time and within budget. OEP will also focus on maintaining the permanent trail - user counting program started in FY2015 and look to assist partners with trail user counting programs as opportunities arise. This project also emphasizes implementation of the region’s “Greenspace Corridors” to provide increased opportunities for non-motorized access to jobs, housing, recreational activities and cultural services.
- **Scenarios, Modeling and Long-range planning/capital programming**—OEP will support DVRPC’s Office of Long Range Planning , as needed, in developing land use, green infrastructure, and environmental data and mapping needed to shape a vision for the region’s future and evaluate transportation investments .
- **Coordination and Facilitation**—OEP will continue to facilitate coordination and discussion within the region through meetings, information sharing, websites and other means, and will participate in environmental, sustainability, trail-development, and climate change adaptation work locally, regionally, and at the state and federal level. OEP will partner with local governments, neighboring MPOs, state and federal agencies, and non-profit organizations.

Completion of this project may require the purchase of equipment or services.

Tasks:

1. Update data on protected lands and share with counties and other agencies.
2. Gather post-election data on localities initiating or changing their open space funding programs through voter referendums.
3. Update and post open space data and tables to the web.
4. Conduct research and data collection to support municipal green infrastructure implementation.
5. Collect, share and disseminate trail-user counting data.
6. Convene the PA counties to coordinate on the creation of a comprehensive trail inventory database.
7. Conduct municipal-based environmental planning work to assist local governments.
8. Provide data, research and analysis to and assist the NJCRC with resiliency initiatives in New Jersey.
9. Continue technical assistance to municipalities, counties, state agencies, and non-profits for greenway, open space and environmental planning.
10. Engage regional trail-building partners to provide technical assistance on trail planning, design, construction, funding, marketing, and maintenance.
11. Cultivate projects and initiatives that promote active transportation and provide technical assistance as needed to local governments and non-profit partners.
12. Co-convene the Climate Change Adaptation Forum workshops and other environmental meetings as needed with guest speakers on topical issues and ample time for coordination and collaboration.
13. Organize and host semi-annual meetings of the PA East Coast Greenway Committee.

Products:

1. Updated Coastal Resiliency Story Map including data and projection for the four New Jersey counties.
2. Updated DVRPC website pages containing current maps, tables, and narrative about protected open space lands and funding programs.
3. PennDOT Connects project reviews.
4. Publication of municipal environmental studies and plans for local governments with which DVRPC has project agreements.
5. Maps, data, and presentations to municipalities and counties with which DVRPC has worked on greenway plans or municipal projects, as needed.
6. Updated Circuit map and data tables. Publish the map via the web and link it to the circuittrails.org website.
7. Presentations on environmental- and trail-related topics.
8. Meetings, data, maps and graphics to support development of the Circuit, the East Coast Greenway, and other active transportation projects.
9. Text, graphics, maps and tables for the environmental components of DVRPC's long-range plan.
10. Climate Change Adaptation Forum meeting materials.
11. PA East Coast Greenway Committee materials.

Beneficiaries:

PA Department of Environmental Protection, PA Department of Conservation and Natural Resources, PA Department of Transportation, NJ Department of Environmental Protection, NJ Department of Transportation, Federal Emergency Management Agency, Pennsylvania Emergency Management Agency, PA Department of Community and Economic Development, counties, municipalities, conservation organizations, land trusts, watershed organizations, sustainability coordinators, trail advocacy groups, the Circuit Coalition, the private sector, and the general public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$330,000	\$250,000		\$80,000	
2021	\$297,000	\$227,000		\$70,000	
2022	\$297,000				
2023	\$297,000				

PROJECT: 21-34-010 Long-Range Planning

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Brett Fusco

Project Manager: Benjamin Gruswitz, Jackie Davis

Goals:

Develop and implement a long-range vision and plan for a sustainable future by providing guidance for future growth and development and ensuring that transportation investments are linked to long-term land use, economic development, environmental, transportation, and equity goals.

Description:

Metropolitan Planning Organizations (MPOs) are required to prepare and maintain a long-range transportation plan with a minimum 20-year horizon, and in air quality non-attainment areas to update the plan every four years. DVRPC has worked with member governments, regional stakeholder organizations, and the public to develop a comprehensive Long-Range Plan that not only addresses the future of transportation, but also looks at the interaction with land development and revitalization, environmental resources, equity, and economic growth.

The Plan serves as a high-level policy directive for all of DVRPC's work and is incorporated into every DVRPC project and program area. The Plan incorporates performance measures for selecting transportation projects and gauging progress toward Long-Range Plan goals. Additionally, the Plan addresses the planning factors required under current federal planning regulations, as well as the national goal areas identified in the most recent federal transportation authorization, the FAST Act. It is also compliant and coordinated with state initiatives, such as PennDOT Connects, and member government comprehensive planning efforts. The current Plan, Connections 2045, was adopted by the DVRPC Board on October 26, 2017. The Long-Range Planning (LRP) unit will continue to implement Connections 2045 by working with planning partners, stakeholders, and the public on taking actions and identifying municipal strategies to bring about the vision.

Work is underway on the Connections 2050 Plan update. Staff will continue public outreach around a vision for orderly growth and development and then work with key regional stakeholders on identifying strategies intended to achieve the vision. The impact of key driving forces shaping the region, as identified in the Dispatches from the Future scenarios report, including climate change, rising inequality, and digital technologies (particularly automated, connected, electric, shared-use, and on-demand vehicles--ranging from scooters to semis--in the transportation sector) will continue to be a focus of this effort. Further LRP development will include an update to the transportation infrastructure investment vision financial plan, including a needs assessment to achieve and maintain a state-of-good repair for all existing transportation infrastructure and revenue options to help fill the region's transportation funding gap. The Plan will continue to be developed and

implemented through outreach to member governments, stakeholders, and the public.

As part of its long-range planning effort, DVRPC will strive to deliver value to the region's economic development community by: collecting and assessing economic data, identifying its importance and relevance, and disseminating the results of that research through economic impact studies; and producing data bulletins, analytical data reports, policy reports, and forums. This research will be based on data available through federal sources (including the U.S. Census Bureau, the Bureau of Labor Statistics, and the Bureau of Economic Analysis) and on regional employment data acquired by DVRPC from the National Establishments Time Series (NETS) database, the CoStar Commercial Real Estate database, and other available economic data sources. This research is intended to highlight (both quantitatively and qualitatively) the economic value of implementing DVRPC recommendations regarding transit-oriented development, reinvestment in older communities, and agricultural and natural resource protection. The project will also support DVRPC staff to help them assess the economic impact of their projects, where feasible.

Completion of this project may require the purchase of equipment or services.

Tasks:

1. Continue a comprehensive public and stakeholder outreach program to identify, prioritize, and implement the vision, policies, strategies, and projects included in the Long-Range Plan.
 - A. Draft a Vision statement for the 2050 Long-Range Plan as a result of feedback gathered through meetings and workshops, the online web survey, and other stakeholder and public outreach.
 - B. Hold two or more strategy development workshops to identify ways to bring about the vision identified in phase one of public outreach.
 - C. Hold two or more public comment period meetings to gather input on a draft version of the Connections 2050 Plan.
2. Work with stakeholder agencies, such as PA and NJ DOTs, transit operating agencies, transportation authorities, and county planning departments, to develop, update, and implement their respective strategic and Long-Range Plan documents and ensure consistency across federal, state, regional, county, and local planning processes.
3. Maintain collaboration with surrounding Metropolitan Planning Organizations as a means to discuss and coordinate multi-regional issues and success stories that cross MPO boundaries on an as-needed basis.
4. Work with the Land Use and Demographics Subcommittee to improve the UrbanSim land use model by collecting regional development pipeline, demographic, land use, travel, and other data to forecast future growth and development of the region. Integrate UrbanSim with the TIM travel demand model, and apply to corridor planning studies and other efforts as needed.
5. Work with the Land Use and Demographics Subcommittee to develop population and employment forecasts, focusing on the years 2015-2050, with the support of

tools such as IHS Markit economic forecast, Impacts 2060, and UrbanSim; and related efforts, such as the Dispatches from the Future scenarios. Summarize forecasts in an analytical data report (ADR).

6. Regularly update and maintain the 'Tracking Progress' indicator data, to gauge the extent to which Long-Range Plan goals are being met and align with state DOT and MPO performance measure targets.

7. Incorporate US DOT Transportation Performance Management performance measures and targets into the long-range planning process. This will include working with state departments of transportation and other planning partners to identify appropriate targets, and monitor regional progress.

8. Work with the LRP Financial Plan Subcommittee to develop a fiscally-constrained financial plan that: forecasts revenues; develops a transportation infrastructure vision plan (i.e. needs assessment); allocates revenues to project categories; evaluates major regional projects using TIP-LRP Project Benefit Criteria and selects MRP's for inclusion the Connections 2050 financial plan; and analyzes alternative local and regional funding options for transportation investments.

9. Draft and publish Connections 2050 Policy and Process manuals. The 2050 Policy Manual will be a short, highly graphic document that highlights results from public engagement, summarizes the Dispatches from the Future scenarios, presents a regional vision for growth and development, identifies key strategies for achieving the vision, and summarizes the fiscally-constrained financial plan. The 2050 Process Manual will document the outreach and analysis that went into the plan's development, and will include the detailed financial plan.

10. Work with DVRPC's Office of Community and Economic Development to develop any necessary data bulletins, ADRs, or data snapshots.

11. Begin exploring additional modeling tools for long-range planning analysis, such as ITHM and VisionEval; Use these tools to update Choices & Voices public engagement tool, also adding in components from the Dispatches from the Future scenarios.

Products:

1. Connections 2050 Policy Manual and Process Manual.
2. Population and Employment Forecast ADR(s).
3. Residential Building Permits, 2010-2020.
4. Population Estimates, 2010-2020.

Beneficiaries:

State, county, and municipal levels of government; transportation agencies and transit operators; and businesses and residents of the region.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$690,000	\$412,204	\$112,796	\$65,000	\$100,000
2021	\$633,500	\$393,359	\$110,141	\$30,000	\$100,000
2022	\$633,500				
2023	\$633,500				

*PennDOT FTA

PROJECT: 21-34-020 Delaware Valley Freight Planning

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Michael Ruane

Project Manager: Kristen Scudder

Goals:

Maximize Greater Philadelphia's position in the global economy by promoting freight within the region, engaging local stakeholders on key freight issues, and implementing a regional goods movement strategy.

Description:

Freight movement is a critical planning factor in the Greater Philadelphia region. The region's economic competitiveness is closely tied to the freight network and, from a transportation perspective, freight shipments and supply chains are highly dynamic across all modes. Planning for freight capitalizes on trends and opportunities and also helps promote quality of life, economic, safety, environmental, sustainability, and land use goals.

The DVRPC freight planning program has evolved substantially since its inception in 1992. The program has directly led to the formulation of policies and projects designed to maintain the region as a preeminent international freight gateway and, at the same time, to promote “good neighbor strategies” that mitigate adverse local impacts. Evidence of the broad integration of freight considerations can be found in the DVRPC Long-Range Plan, the DVRPC TIPs, transportation modeling and travel monitoring, corridor studies, Congestion Management Process, Smart Growth, air quality planning, and in many other aspects of DVRPC’s work.

A major goal of the freight planning program area is to seek to maximize each of the major freight modes and to improve their inter-connectivity. This approach is being advanced by highlighting freight activity and infrastructure needs at designated freight centers and on the region's National Highway Freight Network, on National Highway System connectors serving marine terminals and airports, and on the regional rail freight network.

In FY 2021, the Freight Planning Program will undertake targeted research efforts in addition to its ongoing core activities. These efforts reflect the growing interest of the DVRPC member governments in freight transportation and include: Support to the City of Philadelphia on Urban Freight Initiatives, Data and Planning Support to PennDOT District 6-0 on Heavy Truck Issues, Phase I of a Chester County Freight Plan, and Municipal Education on Truck Routing and Parking.

Finally, a major objective of the freight program is to initiate and sustain meaningful outreach to the local freight community and to build awareness and interest among planners and the general public. The Delaware Valley Goods Movement Task

Force, the region's freight advisory committee, is the focal point of this effort. Educational pieces on freight operations and issues are prepared each year, and many helpful resources are made available on the freight page of the DVRPC website, primarily through the PhillyFreightFinder web mapping application and data platform.

Completion of this project may require the purchase of equipment or services.

Tasks:

1. Provide staffing for the Delaware Valley Goods Movement Task Force, the Task Force's Executive Committee, and membership development efforts.
2. Facilitate Task Force and freight community input on the DVRPC Transportation Improvement Programs (TIPs) (e.g., PennDOT Connects requests), Long-Range Plan, Work Program, Congestion Management Process, Comprehensive Economic Development Strategy, transportation funding programs, and other DVRPC policies, programs, and technical studies.
3. Respond to inquiries, surveys, and requests regarding the region's freight transportation network and freight planning process.
4. Participate in freight associations, special events, and conferences that promote interest and awareness regarding DVRPC (e.g., PA and NJ Motor Truck Associations, and the Traffic Club of Philadelphia).
5. Maintain an ongoing freight data, visualization, and mapping program highlighting facility capacity, freight infrastructure, and activity measures (i.e., vehicle counts by class) through the PhillyFreightFinder tool, leading to assessments of deficiencies and improvement opportunities.
6. Support public sector freight initiatives, freight advisory committees, freight plans, funding programs, multi-state efforts, and DVRPC member governments, neighboring MPOs, the New Jersey, Pennsylvania, and Delaware DOTs, and FHWA.
7. Promote "freight as a good neighbor" strategies that balance freight facilities and operations with community goals (i.e., truck parking, delivery strategies, truck routes).
8. Monitor pertinent federal legislation, support the Transportation Research Board's Urban Freight Transportation Committee, and promote MPO efforts and careers in the field of freight planning.
9. Prepare meaningful and timely technical products for area decision-makers and planners, DVRPC committees, and informational pieces for the general public. This technical work includes:
 - A. Support to the City of Philadelphia on Urban Freight Initiatives: Provide technical and analytical support to the City of Philadelphia Office of Transportation, Infrastructure, and Sustainability (OTIS) on the exploration and implementation of urban freight strategies. This includes data analysis on existing conditions, guidance and review support on pilot programs, and support on the development of a citywide truck route network.
 - B. Data and Planning Support to PennDOT District 6-0 on Heavy Truck Issues: Provide support to PennDOT District 6-0 on local issues related to heavy truck routing. Coordinate with modelling and travel monitoring departments to provide appropriate analysis of identified corridors and issue areas.
 - C. Phase I of a Chester County Freight Plan: This first phase of the Chester

County Freight Plan will build on existing regional freight data work to identify existing freight employment and activity in Chester County. This work will provide background information on the county's freight profile, identify trends, and develop preliminary issues and tasks to be undertaken as a part of Phase II of the countywide freight plan.

D. Municipal Education on Truck Routing and Parking: Building on the existing regional Truck Route Development Framework and ongoing NJ DOT truck parking initiatives, this work will extend the outreach and awareness to local communities on these issues.

Products:

1. Quarterly meetings of the Delaware Valley Goods Movement Task Force, meeting highlights, facilitated communication among the Task Force Executive Committee, update contact information for committee members and friends, and quarterly progress reports.
2. Updated tools and information via the PhillyFreightFinder web mapping application and data platform.
3. Technical reports and memos to include:
 - A. Process memo and analysis products for City of Philadelphia Urban Freight Initiatives.
 - B. Process memo and analysis products for PennDOT District 6-0 on heavy truck issues.
 - C. Phase I of a Chester County Freight Plan technical report.
 - D. Municipal Implementation Tool brochure and supporting materials on local Truck Routing and Parking.

Beneficiaries:

Freight and business communities, member governments, local municipalities, general public, adjacent regions, and states.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$451,250	\$337,614	\$92,386	\$16,250	\$5,000
2021	\$384,500	\$283,789	\$79,461	\$16,250	\$5,000
2022	\$384,500				
2023	\$384,500				

*PennDOT FTA

PROJECT: 21-34-030 Transportation Safety

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Kevin Murphy

Project Manager: Marco Gorini

Goals:

The Office of Safe Streets has a simple goal: to eliminate killed and severe injury crashes and reduce the total number of all crashes in the Delaware Valley. The way to advance this goal is through the identification of crash trends and problem locations, and by promoting data-driven solutions and safety best practices that benefit the travelling public. This objective is consistent with DVRPC's long-range plan goal of eliminating crash fatalities and serious injuries in the region. This multi-faceted program is a collaborative effort with a wide range of partners seeking to improve safety through advancement of project-level safety countermeasures, policy initiatives, and promoting safety culture. Program elements include crash database management, problem analysis, performance measure tracking, and helping partners identify and advance safety projects with dedicated safety funds..

Description:

The Regional Safety Task Force (RSTF) is a multi-modal partnership of agencies and organizations that work together to improve transportation safety which is coordinated by the Office of Safe Streets staff. The RSTF's quarterly meeting structure promotes progress toward regional safety goals through facilitated action item development, which is continually updated and tracked. Each meeting is typically focused on a crash safety emphasis area identified in the Transportation Safety and Analysis Plan—the region's guiding document for safety. Staff actively manages the course of the RSTF and its' progress toward meeting goals and objectives, and serves as facilitator to the task force.

Crash data is the foundation of much of the work of the Office of Safe Streets, and is used in most planning and engineering studies undertaken by DVRPC. Staff coordinates the acquisition of state crash databases and GIS layers, and ensures quality control. This work promotes analytical best practices, data-driven crash safety prioritization of work program tasks, and satisfies data and analysis requests within DVRPC and from partners. This work also advances data products like the crash data web tool and the safety tools in DVRPC's Data Navigator.

The Office of Safe Streets also provides assistance to county and state partners in developing and advancing safety projects with federal Highway Safety Improvement Program (HSIP) funds, among other funds, and tracks progress toward safety objectives; efforts will continue to better serve municipal partners interested in safety projects. Specific activities include program management, crash analyses to support funding applications, and problem identification. This work advances the goals of DVRPC's Transportation Safety and Analysis Plan, DVRPC's Long-Range Plan, and each DOT's Strategic Highway Safety Plan, and tracks progress of

federal safety Transportation Performance Management measures. This work is done in collaboration with DVRPC's Offices of Capital Programming, Long-Range Planning, and Project Implementation.

As crash safety increases in priority among our partners and the public, The Office of Safe Streets receives an increasing number of invitations to participate in and conduct both traditional and non-traditional analyses to deepen program knowledge base. Some of these efforts are with outside partners to advance safety programs and projects that are consistent with the goals of the Transportation Safety and Analysis Plan and DVRPC's Long-Range Plan, and work on tasks resulting from completed projects from the preceding fiscal year.

In Camden City, the popular Kroc Center and the adjacent, still under construction Cramer Hill Waterfront Park on Harrison Avenue, are located in a place where access by pedestrians and bicyclists is not ideal. Although bicycle lanes exist on Harrison Avenue, the street is notorious for vehicular speeding and is generally not comfortable for bicyclists or pedestrians. With the 2020 projected opening of the waterfront park, foot traffic and automobile traffic will both increase along this stretch of Harrison Avenue. In collaboration with DVRPC, Camden County and Camden City have requested a planning project for this stretch of Harrison Avenue in the form of a road safety audit/traffic calming study to examine pedestrian and bicycle access to the two destinations, focusing on safety.

The Office of Safe Streets has been asked to renew the Road Safety Audit (RSA) program. In addition to the Harrison Avenue study, staff will conduct a more traditional RSA at a yet-to-be determined location in a New Jersey county. This location will be chosen from NJDOT's data-driven HSIP safety network screening lists in collaboration with county partners. The final product will support application development for NJDOT's HSIP Local Safety Program, as well as locally-funded safety improvements.

PennDOT District 6-0 recognized the need for context appropriate treatment given Philadelphia's unique character and wide variety of cross-section types, traffic volumes, and contexts that fall under the arterial designation. To promote safe and efficient movement of people and goods throughout Philadelphia's transportation network, District 6-0 expanded the focus to also include city-owned arterial roads. This result was four roadway typologies that apply to all arterial roads in Philadelphia, each with specific traffic calming opportunities. This project is designed to provide support to District 6-0 and City of Philadelphia in advancing this work.

Tasks:

1. Regional Safety Task Force

A. Prepare for and hold quarterly meetings focused on AASHTO emphasis areas identified in the Transportation Safety and Analysis Plan, and one or more special meetings per cycle, i.e.: via collaboration with another DVRPC task force or

committee. Staff and co-chairs will be continuing FY 2020's year of safety culture themed meetings using the fall and December meetings to complete the program. In calendar year 2021 staff will resume emphasis area-focused meetings.

B. Complete full-meeting summaries and DVRPC Board highlights, and maintain an archive of all RSTF work and meetings.

C. Track progress toward safety objectives and take action to advance a culture of safety, and the goal of zero fatalities and serious injuries in the region.

D. Manage volunteer action items and other tasks that emerge from RSTF meetings.

E. Promote safety best practices and partner initiatives via social media.

F. Begin data analysis needed for update of the Transportation Safety and Analysis Plan, and plan for presentation of emphasis area results to RSTF for approval. Exact schedule for plan update, and its final product form will be determined toward the end of calendar year 2020.

2. Crash Data Management System

A. Coordinate the refinement and maintenance of the crash databases, stay engaged with state partner crash data systems, and consider opportunities for efficient coordination.

B. Coordinate the crash data updates to DVRPC's databases, GIS layers and data navigator, and coordinate with DOT's on quality issues; participate in statewide crash records coordinating committees.

C. Respond to data, mapping, and analysis requests from inside and outside of DVRPC providing the high-quality service for partners and other agencies.

D. Continue to develop and maintain the Crash Data and Analysis Web Tool developed in FY 2019.

3. Safety Project Development Assistance and Coordination with Safety Partners on HSIP Project Implementation

A. Facilitate the New Jersey HSIP Local Safety Program to help county and municipal partners fund data-driven safety projects. This is a cooperative effort with the DVRPC Offices of Project Implementation and Capital Programs. Subtasks include distribution of network screenings and assisting partners in identifying data-driven safety projects, providing support such as crash analysis, countermeasure development assistance, HSM analysis, and/or sketch planning.

B. Facilitate regular meetings to support the PennDOT District 6-0 HSIP program, and provide special services as needed, i.e.: safety data mapping, HSIP project tracking, and coordination with county partners to plan for future rounds of statewide HSIP funds and project identification.

C. Coordinate with state and federal partners on FAST Act Transportation Performance Management safety performance measurement tracking, and support state SHSP updates and advancement of plan priorities.

D. Collaborate with state, county, and municipal partners to identify data-driven HSIP-eligible systemic safety projects.

E. Assist with RFP development, proposal review, and project tracking for HSIP-funded consultant led safety improvement projects.

4. Special Studies & Coordination Efforts

A. Participate in other studies and efforts, as requested, including the Frankford Avenue intersection study managed by the Office of Corridor Planning.

B. Coordinate with the Office of Transit, Bike, and Pedestrian Planning on small tasks arising from the Trenton Complete Streets project.

C. Coordinate with other DVRPC offices on possible tasks related to work program partner discussions

D. Provide assistance drafting appropriate sections for the forthcoming Connections 2050 LRP

5. Road Safety Audits and Traffic Calming

A. Harrison Avenue

1. Create a stakeholder group in collaboration with City of Camden, Camden County, point people representing Cramer Hill Waterfront Park and other local partners.

2. Conduct background research and data collection to establish need for an RSA-style planning study.

3. Conduct RSA-style event.

4. Produce final product.

B. Other RSA

1. Using HSIP network screenings and available planning studies collaborate with county and city partners to identify candidate locations demonstrating critical safety needs. Conduct a prioritization and selection process to identify the best location for an RSA.

2. Conduct RSA.

3. Produce final product.

6. PennDOT Speed Management and Arterial Roadway Typologies

A. In collaboration with District 6-0 safety partners and their counterparts from the City of Philadelphia, draw from completed Street Typologies project to identify quality control tasks to help with implementation.

Products:

1. RSTF meeting materials and summaries, results of volunteer actions.

2. Crash databases and other electronic products.

3. Potential HSIP projects carried to the application stage, coordination of all applications, and delivery of accepted applications to FHWA for funding, summaries of meetings with PennDOT officials.

4. GIS layers, prioritization tool.

5. Various meeting materials, handouts, and priority recommendations.

6. Meetings, testing, priority recommendations.

Beneficiaries:

Residents, employees, through-travelers, and shippers experiencing a safer and more reliable transportation system; municipalities, counties, state agencies, and federal agencies.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$426,250	\$329,763	\$90,237	\$1,250	\$5,000
2021	\$384,250	\$295,312	\$82,688	\$1,250	\$5,000
2022	\$384,250				
2023	\$384,250				

*PennDOT FTA

PROJECT: 21-34-040 Regional Congestion Management Process

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Thomas Edinger

Project Manager: Ian Schwarzenberg

Goals:

Minimize congestion in the DVRPC region and enhance the ability of people and goods to get where they need to go by means of a systematic, integrated, multimodal transportation network. The CMP is a medium-term planning process and advances the goals of the DVRPC Long-Range Plan and strengthens the connection between the Plan and the TIP.

Description:

A Congestion Management Process (CMP) uses data and performance measures to identify and prioritize congested corridors on the regional transportation network. It helps determine the causes of traffic congestion and develops multimodal transportation strategies to reduce congestion to allow for better mobility and accessibility across the region. The CMP assists with considering alternative strategies to mitigate congestion rather than building additional roadway capacity, and with developing the required supplemental strategies where additional capacity is needed.

The CMP is an objective-driven, performance-based approach that addresses all elements of federal CMP regulations. It incorporates archived operations data for planning, Transportation Systems Management and Operations (TSMO), Travel Demand Management (TDM), coordination of transportation and land use planning, goods movement, Complete Streets, safety, transportation resiliency planning, and Environmental Justice and equity. The CMP includes work with the new federal Transportation Performance Management (TPM) requirements, specifically measuring system performance on the National Highway System, known as PM3 measures. This includes travel time and freight reliability measures and Peak-Hour Excessive Demand (PHED) and Percent Non-Single Occupant Vehicle (Non-SOV) traffic congestion measures. The CMP continues to evolve as more refined data and software tools are available to identify and analyze congestion. Following are the focus areas for FY 2020:

Update the PM3 baseline measures – Coordinate with planning partners in preparing data to calculate baseline performance measures and identifying targets, and monitor progress toward attaining targets.

Ongoing CMP Data Collection and Analysis – Use updated travel time and other data to identify trends in system performance across the transportation network. Update strategies to mitigate congestion based on performance measures with guidance from the CMP Advisory Committee.

Use the CMP for Project Development – The CMP helps to link projects to Long-Range Plan goals. It does this through the development of problem statements, participating in multimodal alternative analyses, facilitating development of supplemental projects that will help get the most long-term value out of new road capacity investments, and supporting completion of these commitments. These are all federally required CMP tasks.

Stay Current with the Practice of CMP – DVRPC's CMP is known nationally as a leading practice, and has been cited in both of FHWA's CMP guidebooks. We endeavor to stay in the lead of the state of the practice in order to do effective work in the region, and to excel within our resources. The FAST Act reinforced the existing CMP, and also adds additional potential work on improving access to jobs. The use of archived operations data for planning has been essential to the CMP and preparing for TPM requirements. This has been facilitated in part through participation in the I-95 Corridor Coalition.

Tasks:

1. Implement the Transportation Performance Management (TPM) requirements
 - A. Review FAST Act regulations and guidance with other DVRPC staff, and with partners within and outside the region, such as DOTs and adjoining MPOs. Stay informed of related regulations.
 - B. Conduct necessary technical efforts with NJDOT, PennDOT, MPOs, and other planning partners on maintaining and using PM3 performance measures and setting 2- and 4-year targets. Specifically, this includes the Level of Travel Time Reliability (LOTTR) and Truck Travel Time Reliability (TTTR) roadway reliability measures, and the PHED and percent Non-SOV traffic congestion measures. Review and discuss them with the CMP Planning Advisory Committee, and other planning partners.

2. CMP Ongoing Data Collection and Analysis
 - A. Perform ongoing CMP data collection and analysis using INRIX travel time and other data to identify trends in system performance across the network. Update strategies to mitigate congestion based on performance measures with guidance from the CMP Advisory Committee.
 - B. Perform before and after traffic evaluation studies of projects intended to mitigate congestion to help understand the effectiveness of the strategies. Incorporate archived operations data, and consult with project stakeholders, and the CMP Advisory Committee.
 - C. Use existing CMP analysis and other studies to refine CMP strategies to manage congestion by subcorridor, especially TDM and transit strategies.
 - D. Maintain CMP website mapping and other contents as needed, or requested.

3. Use the CMP in Project Development
 - A. Help develop and advance problem statements consistent with the CMP.
 1. Participate in internal DVRPC processes to implement high priority recommendations from NJDOT problem statement reports.
 2. Participate in NJDOT Complete Team, Congested Places, and CMS-21 programs, and conduct field work or prepare draft problem statements, as

necessary, for submission to NJDOT staff as requested and track results.

3. Participate in the PennDOT problem statement development process as applicable for major SOV projects, which is now partially facilitated through the PennDOT Connects process, and work with PennDOT and DVRPC Subject Matter Experts.

B. Review TIP or LRP projects with respect to consistency with the CMP. Coordinate results using TIP and Long-Range Plan processes, and evaluation criteria in prioritizing projects.

C. Participate in required CMP activities to evaluate whether congestion problems can be substantially minimized through strategies other than adding roadway capacity.

D. Facilitate development of supplemental strategies for projects that will add road capacity to get the most long-term value from the investment.

E. Support progress of supplemental CMP projects through coordinating with multimodal partners, and tracking the progress being made in keeping with regulations. Update the CMP Supplemental Projects Status Memorandum report that provides the current status on supplemental project commitments for major SOV capacity-adding projects. Work on a new online database that provides access to Supplemental Strategies report information.

4. Stay Current with the Practice of CMP

A. Stay engaged with the fast-evolving use of archived operations and origin/destination data for planning. Important areas include: calculating travel times and traffic delay from INRIX and other sources; facilitating how estimated traffic counts can be derived; and integrating origin/destination trips data into the CMP to understand where shorter and longer trip patterns are occurring to help in identifying mitigation strategies for different corridor areas. This can be done in part through engagement with the Vehicle Probe Project of the I-95 Corridor Coalition, and with DOT partners.

B. Continue to improve understanding of the effectiveness of individual CMP strategies through sketch-level models, cost/benefit studies, and before-and-after analysis.

C. Participate in CMP-related efforts by regional and national partners based on invitations and time available.

Products:

1. Documentation of the generation and analysis of updated PM3 reliability and traffic congestion measures and targets. Coordinate work with DOTs and other planning partners for presentation to the RTC and DVRPC Board, as applicable.

2. Updated CMP travel time and other delay performance measures for 2018 and 2019 to identify trends in performance by roadways facility and corridor area.

3. Before and after traffic evaluation studies for projects to help understand the effectiveness of the strategies.

4. Updates to CMP web content, including mapping.

5. Draft CMP-related problem statements, and their status.

6. Update of CMP Supplemental Projects Status Memorandum report.

7. Refined online resource for understanding status of supplemental projects in

Memorandum report.

Beneficiaries:

Member governments and agencies, organizations involved in managing congestion, businesses and citizens served by a more efficient and reliable multimodal transportation network.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$246,250	\$240,000		\$1,250	\$5,000
2021	\$222,250	\$168,750	\$47,250	\$1,250	\$5,000
2022	\$222,250				
2023	\$222,250				

*PennDOT FTA

PROJECT: 21-34-050 Air Quality Planning

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Sean Greene

Goals:

Improve air quality in the region through coordination of intra- and inter-regional policies, identifying funding opportunities to reduce emissions from transportation sources, public education and outreach, and demonstration of transportation conformity of the region's Long-Range Plan and Transportation Improvement Programs.

Description:

DVPRC's air quality program has three main components:

1. Technical Analysis (Transportation Conformity),
2. Public Education and Outreach (Air Quality Action), and
3. Stakeholder Coordination (Air Quality Planning Coordination).

Federal requirements mandate that DVRPC must demonstrate the conformity of the region's Long-Range Transportation Plan (Plan) and the Transportation Improvement Programs (TIPs) with air quality goals. The Plan and TIPs need to be amended from time to time with projects which may require a demonstration of conformity. This work will be consistent with the guidance released by the US EPA and US DOT. Acceptance of the conformity findings is necessary for transportation projects to be funded.

DVRPC administers the Air Quality Action (AQA) program through the auspices of the Air Quality Partnership. The region will continue to implement a program in which the public, employers, and the media will be informed of anticipated poor air quality days. Residents, and especially commuters, are encouraged to voluntarily adopt measures to minimize emissions on such days — such as using transit, carpooling, conserving energy in the home, postponing driving, or refueling after the air quality episode has passed. The program will reinforce elements of several other programs already in place, such as the Mobility Alternatives Program (MAP). The program functions to reduce emissions on days when conditions are favorable for ozone and/or fine particulate matter formation, and serves as an educational effort to make residents aware of the air quality problem and of the behavioral changes which can limit exposure and reduce emissions.

DVRPC also serves as a regional coordinator and participant in various air quality initiatives. The focus is on discussion, coordination, and progress on air quality issues with regional and federal air quality stakeholders. Policies selected to guide the region on transportation-related air quality measures will also be discussed. DVRPC will also work to achieve interstate coordination within the ozone and fine particulate matter (PM 2.5) nonattainment and maintenance areas. This project

permits proactive participation in the air quality planning activities of the departments of transportation and environmental protection in Pennsylvania and New Jersey, as well as the US EPA and US DOT. Contacts will be maintained with Delaware and Maryland agencies as well. Communication and educational activities will be maintained with the region's leadership to broaden the understanding of issues and policies. Staff will also participate in additional air quality related activities that promote the reduction of emissions in the nonattainment and maintenance areas. DVRPC will work towards reducing regional emissions by assisting planning partners to apply for and access funding sources, such as the Volkswagen Environmental Mitigation trust, and state and federal DERA funds to replace or repower diesel engines. DVRPC staff will coordinate partner strategies, assist with funding applications, and emission reduction calculations. Where practical, DVRPC will serve as the applicant for clean air grants from state and federal sources to facilitate projects in the region to reduce mobile source emissions.

DVRPC will assist the state DOTs implement the Congestion Mitigation and Air Quality (CMAQ) program. Staff will assist with project eligibility determinations, emissions analysis of proposed projects, and CMAQ project selection. DVRPC will develop CMAQ performance measure reports for the region and coordinate the CMAQ Transportation Performance Management (TPM) process with the state DOTs and other regional stakeholders.

Completion of this project may require the purchase of equipment or services.

Tasks:

1. Transportation Conformity

A. Determine the projects in the Plan and/or TIPs, or any revisions, which have an impact on air quality conformity determination.

B. Review and update procedures for conducting conformity tests, incorporating model enhancements and revisions to the applicable State Implementation Plans.

C. Prepare input parameters for the regional travel simulation model and for the latest version of the MOVES model approved by US EPA, particularly inspection and maintenance characteristics in each state.

D. Run the travel demand model to determine emissions associated with proposed TIP, Plan, or TIP/Plan amendments.

E. Perform off-model analyses on projects for conformity determinations as required.

F. Ensure that the Conformity Determination meets requirements and deadlines for emerging regulations and updated standards.

G. Coordinate all activities with the Transportation Conformity Interagency Consultation Group (ICG) and conduct public outreach.

2. Air Quality Action

A. Convene regular meetings of the Air Quality Partnership Board and any committees it may create. Include representation throughout the nonattainment area.

B. Work with state DEPs to promote the Enviroflash air quality alert system in order to maximize its effectiveness.

C. Raise awareness of the Enviroflash system with the public and the media to extend the reach of the air quality forecast alert system.

D. Develop and produce various products required to promote the program and strategies for air pollution avoidance and emissions reduction.

E. Create and implement effective outreach strategies to educate susceptible populations (Environmental Justice communities, students, and minorities) about protecting public health from air pollution and emissions reductions.

F. Develop educational materials and programs to assist program partners to extend the reach and effectiveness of the program.

3. Air Quality Planning Coordination

A. Provide staff support for the Regional Technical Committee, including the maintenance of records, agendas, meeting summaries, and staff presentations. Participate in meetings and workshops, at the request of US EPA, the state environmental departments, and others, on air quality planning. This will include quarterly meetings of the PA Air Quality Working Group and periodic meetings of the NJ Air Quality Working Group.

B. Provide literature or presentations to groups requesting information on transportation and air quality programs.

C. Publish 10 issues of the ALERT newsletter on air quality activities.

D. Review conformity demonstrations with transportation and air quality committees and present the results of meetings on the Plan and/or TIPs.

E. Demonstrate the air quality benefits of CMAQ-funded projects through air quality analysis using the FHWA CMAQ Analysis Tool and Air Quality Off-Network Estimator for state DOTs.

F. Coordinate CMAQ TPM reports with state DOTs. Submit reports and maintain compliance with CMAQ TPM requirements.

G. Review proposed CMAQ projects for cost effectiveness and eligibility.

H. Provide data and information to planning partners and health professionals regarding regional air quality statistics and analysis.

I. Serve on state ICG for project-level conformity hot-spot analysis.

J. Assist planning partners to apply for state and federal funding, including but not limited to the Volkswagen Environmental Mitigation Trust and DERA, to reduce emissions from transportation sources.

Products:

Transportation Conformity

1. Summary report documenting conformity procedures, including MOVES inputs, program modules, and emissions factors that demonstrate that the TIPs and Long-Range Plan are compatible with air quality goals.
2. Updates to the Conformity webpage.

Air Quality Action

3. A report on the year's activity submitted to PA DEP.
4. Resources for news and editorial outlets for stories on air quality.
5. Paid advertisements and promotional literature.
6. Public outreach at community and environmental events.

7. Educational presentations and materials for use by project partners.

Air Quality Planning Coordination

8. Action items for the RTC and other committees.

9. Papers and presentations on transportation and air quality planning.

10. 10 issues of the Alert newsletter on transportation and air quality items of interest.

11. Funding applications for projects to reduce transportation related emissions.

12. CMAQ TPM reports and web updates as required

Beneficiaries:

State, county, and municipal governments, DOTs, and residents of the region.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$286,250	\$219,842	\$60,158	\$1,250	\$5,000
2021	\$244,250	\$185,937	\$52,063	\$1,250	\$5,000
2022	\$244,250				
2023	\$244,250				

*PennDOT FTA

PROJECT: 21-34-060 Performance-Based Planning and Asset Management

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Brett Fusco

Project Manager: Jackie Davis, John Coscia

Goals:

Performance-based planning fulfills and coordinates federal Transportation Performance Management (TPM) requirements by applying performance management principles that measure, evaluate, and report on the impacts of resource allocation decisions on transportation performance of the multimodal transportation network. Transportation Asset Management (TAM) procedures and data can be used to maintain and improve the region's transportation network by identifying the region's transportation assets, monitoring conditions, and advancing improvements in a systematic manner that will minimize life cycle costs and forward regional and statewide goals. Assets include roads, bridges, rails, transit vehicles and stations, signals, and various roadside features.

Description:

A number of factors are straining our transportation network: increased congestion, more truck travel, growing population, aging infrastructure, higher customer expectations, escalating construction and operating costs, and limited funding. These factors threaten the viability of our transportation network unless the region is able to more effectively and efficiently deploy financial resources to maintain and upgrade our existing assets.

Performance-based planning is a strategic approach that uses transportation network information to guide investment and policy decisions to meet desired performance objectives. A performance-based process includes coordination and collaboration with external partners along with transportation network data collection, management, and analysis. Performance-based plans identify strategic objectives, set targets, make performance-based planning and programming recommendations, undertake monitoring and adjustment, and report and communicate outcomes. Performance-based planning was one of the most transformative elements of the MAP-21 federal transportation legislation, which was continued and reinforced in the FAST Act. The initiative is a strategic approach that uses real data to measure how our systems and infrastructure are performing to make investment decisions that help organizations reach a set of predetermined targets that guide how their systems and infrastructure should operate. USDOT has implemented new regulations related to Transportation Performance Management (TPM) through the Federal Rulemaking process. Through these regulations, state DOT's, MPO's, and transit operators are held to a higher-level of performance accountability.

Through the use of transportation asset management systems (TAM) and

engineering and economic analysis tools, the region, in concert with the infrastructure owners and operators, can more comprehensively view the big picture and evaluate system data to guide performance-based decision making on how limited financial resources can best be deployed in the Long-Range Plan (Plan) and the Transportation Improvement Programs (TIPs). Asset management plans should guide a structured sequence of maintenance, preservation, repair, rehabilitation, and replacement actions that will achieve and sustain a desired state-of-good repair over the life cycle of the assets at minimum practicable costs; as well as track progress of selected projects toward meeting TPM performance goals. By effectively refocusing business and engineering practices on life cycle costs and benefits, better decision-making on resource allocation and utilization will result.

DVRPC has been working closely with NJDOT, PennDOT, SEPTA, NJ TRANSIT, and DRPA/PATCO to establish strategic objectives for managing and improving their assets and identifying specific performance measures needed to meet those objectives. DVRPC has also addressed project prioritization in its Long-Range Plan development, in its Congestion Management Process (CMP), and project benefit evaluation criteria for the Plan and TIPs. DVRPC will continue to provide input and guidance to our partners as they develop and expand on performance-based planning and transportation asset management processes and utilize them to identify cost-effective improvements to maintain and enhance the region's transportation network. Our partners hope to extend these systems to cover all owners and operators in the region, including turnpikes and authorities, as well as counties and municipalities. It is essential that the asset owners and operators establish an internal asset management agenda and a willingness to share with DVRPC their data on asset age, design, condition, and improvement costs by treatment type. The parties recognize that data does not currently exist for all asset categories or that it may exist in formats that are not readily usable by an asset management system. For TAM to be used as a decision-support tool, it is critical to know what assets are in place, their current condition, their expected performance over time, and how the data can be linked to engineering and economic performance measures.

A key reason to develop performance-based plans and TAMs is to better inform the capital programming process, whether short-term (TIPs) or long-term (Plan). Both DOTs have established mechanisms to advance this linkage. In New Jersey, the Capital Investment Strategy is the mechanism that NJDOT uses to link asset management to the capital programming process. In Pennsylvania, the PennDOT Connects initiative is a key mechanism that links asset management to the capital programming process. The Pennsylvania Local Asset Data Collection initiative, whereby MPOs assisted PennDOT in establishing an inventory of locally-owned (initially bridges and roadways) assets, also links planning goals and investments. This project contains funds to assist in the development of local transportation asset inventories, if requested.

Staff will work with the DOTs, transit operators, and authorities as they use performance-based planning and programming to advance their TAM plans and

systems, and develop and implement TPM requirements. DVRPC will be involved in the development of these processes, working cooperatively with stakeholders to obtain agreement on data structures, performance measures, strategic funding allocation methods, local system data collection, and data sharing and reporting procedures. Staff will coordinate TAM efforts with work being done under the CMP.

Tasks:

In a cooperative effort with the owners/operators of the various transportation assets, in particular NJDOT, PennDOT, member counties, SEPTA, NJ TRANSIT, and DRPA/PATCO (and possibly the turnpike authorities):

1. Engage and coordinate with planning partners to identify transportation asset categories, strategic objectives, and measurable performance and/or service levels to meet those objectives.
2. Participate in the development and use of the various partner performance-based plans and asset management systems to track information on asset inventory, condition, needs, and performance for various asset categories as required to comply with the Transportation Performance Management requirements identified in MAP-21 and reinforced in the FAST Act. This will include working with state DOTs to develop a Transportation Asset Management Plan (TAMP).
3. Participate in NJDOT Problem Intake Process meetings and tasks.
4. DVRPC will also coordinate with PennDOT, and member counties and cities on the collection and validation of data on local transportation asset, if requested.
5. Assist asset owners to utilize their performance-based plans and asset management systems to:
 - A. Identify typical costs for maintaining and preserving existing assets.
 - B. Identify stakeholder and public expectations and desires.
 - C. Define those asset condition values that would trigger when to make a particular investment (such as preservation, rehabilitation, reconstruction, replacement, or capacity enhancement).
 - D. Analyze asset data to determine when to implement the most cost-effective action for a specific asset.
 - E. Coordinate with the CMP, including sharing data and methods.
 - F. Utilize the asset system processes and data to develop draft TIP and Plan updates.
6. Assist TAM owners in the development and production of system performance reports.
7. Track how technology and process innovations are changing the nature of asset management and transportation infrastructure design, project delivery, lifespans, and maintenance needs.
8. Work with planning partners to develop USDOT TPM performance measure targets, analyzing current conditions and project likely future conditions, monitor and report on performance over time, and make investments to achieve the targets.
9. Evaluate proposed projects using the TIP and LRP Project Benefit Criteria as a part of the project selection processes.

Products:

- 1. New or updated memorandum(s) of understanding with planning partners.
- 2. Technical Memorandum(s) detailing USDOT TPM performance measures and targets.
- 3. Update to Transportation Performance Management website.
- 4. Application of TIP and LRP Project Benefit Selection Criteria with NJ FY 2022 TIP and Connections 2050 financial plan updates.

Beneficiaries:

Member counties, state DOTs, and transit operators.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$350,000	\$176,659	\$48,341	\$25,000	\$100,000
2021	\$327,500	\$158,203	\$44,297	\$25,000	\$100,000
2022	\$327,500				
2023	\$327,500				

*PennDOT FTA

PROJECT: 21-41-010 Technical Assistance to Member Governments

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: John Ward

Project Manager: Michael Ruane, Renee Wise

Goals:

To ensure intergovernmental coordination on transportation issues; provide technical assistance and training to increase implementation opportunities; and encourage local and agency actions that help to implement the regional long-range transportation plan's policies and concepts, as well as federal and state policy and program initiatives.

Description:

Ensure intergovernmental coordination, technical evaluation, and regional policy formulation on transportation issues, aviation issues, projects, and plans through monthly meetings of the Regional Technical Committee and quarterly meetings of the Regional Aviation Committee (including meeting minutes and pertinent presentations, research, and technical assistance activities). In addition, flexible, short-term responses to the day-to-day needs of DVRPC's member governments and operating agencies will be prepared. DVRPC will also respond to specific requests from PennDOT to assist with special smaller scale traffic studies. Assessment and analysis of transportation systems financing options may also be undertaken. Responses to legal inquiries and estimates of the air quality, land use, and transportation effects of proposed transportation improvements may also be prepared. Coordination with PennDOT Connects activities, meetings, and program tasks will also occur, including application of the new approaches to pertinent projects.

PennDOT guidance has required DVRPC to contribute to a statewide effort to develop an inventory of locally owned transportation assets, such as roads and bridges. This specific effort was completed in FY19, however DVRPC is poised to work with PennDOT and the State's Planning Partners to coordinate on the development of other transportation asset data collection efforts as deemed appropriate.

This project will also allow DVRPC staff to participate in PennDOT planning and programming efforts such as the Planning Partners meetings, Planning Catalyst Team, PennDOT Connects initiative, and the annual Unified Planning Priorities Work Group. It will also allow staff to prepare and participate in the NJDOT Quarterly Collaboration Meetings, NJDOT Statewide Transportation Innovation Council meetings, NJDOT Complete Team meetings, NJ Statewide Traffic Incident Management Steering Committee.

Tasks:

1. Staff the Regional Technical Committee meetings, including preparing agendas, minutes, and similar materials related to the long-range plan, Transportation Improvement Program, the Annual Planning Work Program and other transportation and land use issues or projects.
2. Staff the Regional Aviation Committee meetings, including preparing agendas, minutes, and similar materials
3. Participate on transportation committees at the regional, state, or national levels.
4. At least semiannually, consult with city/county planning directors regarding ongoing projects and short-term needs.
5. Participate on regional or statewide working groups and task forces, as appropriate, to represent DVRPC's interests.
6. Conduct short-term research or prepare policy papers and memoranda in response to member government requests or as a follow-up to on-going or proposed DVRPC initiatives..
7. If required, respond to legal inquiries on previously completed studies.
8. Continue to undertake activities that respond to the new PennDOT Connects initiatives, including development and implementation activities, such as PennDOT Connects Collaboration meetings, completion of and research for Screening Forms and Environmental Screening Tools, and centralized asset management. Other activities will include coordination with PennDOT and communication of the outcome to local, city, and county planners.
9. DVRPC will also coordinate with PennDOT, and the PA Planning Partners on the potential development of new data collection efforts for transportation assets.
10. Coordinate with the Federal Transit Administration with regard to New Start and Small Start applications proposed by member governments and transit operators.
11. DVRPC will continue to monitor US DOT Metropolitan Planning Organization requirements as well as other policy and program initiatives.

Products:

1. Policy papers, memoranda, and brief research reports as required.
2. Meeting agendas, minutes and related materials as required.
3. Data and other research materials related to the investigation of legal issues involving specific transportation improvement proposals or projects.
4. Summary of coordination and outreach activities related to PennDOT Connects as required.
5. Program development for potential PennDOT's asset inventory (if requested)

Beneficiaries:

Municipalities, state DOTs, operating agencies, county planning agencies, businesses, and citizens.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$311,044	\$227,852	\$62,311	\$10,881	\$10,000
2021	\$286,104	\$207,188	\$58,035	\$10,881	\$10,000
2022	\$286,104				
2023	\$286,104				

*PennDOT FTA

PROJECT: 21-41-020 Transportation Improvement Program (TIP)

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Elizabeth Schoonmaker

Project Manager: Kwan Hui, Richard Murphy

Goals:

To improve access to and efficiency of the region's transportation network by developing a financially constrained, multi-modal, multi-year transportation capital program and securing the financial resources to implement the program as reflected in the TIP and the Long-Range Plan.

Description:

This project provides for transportation financial planning and capital programming for the DVRPC region. Staff will work with state, regional, and federal planning partners to identify financial resources available from public and private sources to implement the Transportation Improvement Program (TIP) as well as the Long-Range Plan. DVRPC will also develop and maintain a regional DVRPC TIP for both Pennsylvania and New Jersey, as mandated by federal regulations, and will post information related to both processes on the DVRPC website. This project supports negotiations to ensure that the region receives adequate financial resources, and to identify and select transportation projects that address the needs of the region and advance the goals of the Long-Range Plan.

The TIP selection process is ultimately based on consensus, but performance-based measures have been incorporated into benefit criteria which will proactively position the region to address requirements of federal transportation authorizations and further link to goals of the Long-Range Plan. Universal project benefit criteria are used to evaluate new project proposals of various modes and project types (roadway, transit, bike, pedestrian, freight), and are used in Pennsylvania and New Jersey counties in the DVRPC region. The following factors are currently considered in determining benefits of project proposals: Safety, Facility/Asset Condition and Maintenance, Reliability and Congestion, Centers and the Economy, Multimodal Use, Equity, and the Environment. Program development occurs through a TIP subcommittee comprised of regional stakeholders who consider schedules and costs of existing projects, as well as potential for new projects, all constrained by the level of funding available. All project costs and schedules are updated by DOT Project Managers or Project Sponsors, as appropriate. A series of subcommittee meetings are held to further review costs and schedules, vet concerns, and negotiate. A constrained draft program is released for a 30-day public comment period prior to presenting to the DVRPC Board for adoption.

DVRPC will undertake an extensive public participation program that responds to the requirements of federal transportation legislation and environmental justice concerns as it relates to this project. Coordination with DOTs' program development and project development and delivery activities, including PennDOT Connects in

PA, and Concept Development in NJ, will also occur. Staff will continue to investigate innovative financing techniques and emerging federal regulations and state policies, particularly as they pertain to funding and capital programming. For more information, see: <http://www.dvrpc.org/tip>

Tasks:

1. Participate in development of statewide financial guidance with NJDOT, PennDOT, and the federal agencies (FTA and FHWA), as appropriate.
2. Conduct negotiations with the state DOTs and transit operators on behalf of the region to arrange for funding of the projects in the TIP.
3. During the TIP update cycle, revise costs, schedules, and descriptions of carryover projects from the previous TIP; coordinate program development and project development and delivery activities, including PennDOT Connects, and NJ Local Concept Development project development processes; evaluate new project proposals using the TIP Benefit Criteria and assist the RTC in prioritizing new projects.
4. Participate in PennDOT Connects project development activities and in NJDOT Capital Program Committee project reviews, and coordinate as needed including external partners and internal Subject Matter Experts.
5. Undertake an extensive public participation program to solicit comments and input from the general public on the TIP and to provide public education opportunities in various forums. The public participation component will respond to the requirements of the FAST ACT and Environmental Justice concerns.
6. Provide opportunities for public comment on the capital program and prepare a summary of public comments and agency responses for Board consideration prior to adoption of the TIP.
7. According to constraints of financial guidance and in consultation with the counties/cities, DOTs, transit operators, and the RTC, develop a draft TIP (in printed and electronic form), prepare an administrative version of the TIP (following Board adoption) with supporting documentation for submission to state DOTs to be included in the STIP for transmittal to the federal agencies, and prepare a final document for general use (in printed and electronic form).
8. Prepare financial summaries for each TIP (Pennsylvania and New Jersey); monitor actual funding of these programs; maintain project data; monitor projects; and provide periodic reports and summaries to DVRPC committees and Board.
9. Maintain the current TIP and assist states, counties, and transit operators with funding changes for TIP actions to maintain fiscal constraint. Review, evaluate, and process requests for TIP amendments and modifications according to procedures in the Memorandum Of Understanding for Pennsylvania and New Jersey. Periodically review and revise the MOU in conjunction with the state DOT's and FHWA/FTA.
10. Update and maintain the TIP database and post information on the website.
11. Coordinate with DOT's in development and integration of transportation performance measures.
12. Develop financial estimates for the transportation element of the Long-Range Plan, when appropriate.
13. Participate in special project solicitations (e.g., CMAQ, HSIP, Local Bridges).
14. Investigate and explain to the Board, its committees and the public, the laws and

regulations related to federal funding programs and planning requirements, as well as state funding programs.

- 15. Research innovative funding techniques and assess for local applicability.
- 16. Make presentations to committees and public groups and respond to public questions.

Products:

- 1. Financial plans for the TIP.
- 2. Financial Summary Reports.
- 3. Project Development Screening Forms.
- 4. Regional Transportation Improvement Program.
- 5. Periodic amendments and modifications to the TIP.
- 6. Periodic status reports.
- 7. News Releases and Public Information documents.

Beneficiaries:

State and federal agencies, operator agencies, member governments, and the public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$646,250	\$502,496	\$137,504	\$1,250	\$5,000
2021	\$646,250	\$500,000	\$140,000	\$1,250	\$5,000
2022	\$646,250				
2023	\$646,250				

*PennDOT FTA

PROJECT: 21-41-030 Transportation Operations

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Christopher King

Project Manager: Paul Carafides

Goals:

Promote more efficient and cost-effective use of the existing transportation network and services through enhanced coordination and integration of Intelligent Transportation Systems (ITS) and Transportation Systems Management and Operations (TSMO) strategies in order to create more reliable traffic flow, improved safety, reduced congestion, less wasted fuel, cleaner air, and more efficient use of resources including facilities and funding.

Description:

Federal metropolitan planning regulations require MPO's to incorporate transportation operations into their transportation planning processes. DVRPC addresses that requirement through the conduct of two long-standing related initiatives. The Transportation Operations Program Area and the Transportation Systems Management and Operations Project (21-41-060) highlight key activities undertaken by these programs which were re-organized for FY 2021 to make sure that all the associated tasks were eligible for the appropriate federal funding sources assigned to each. This required the movement of some tasks from one program to another. The overall project budget for the Transportation Systems Management and Operations Project went down considerably while the Transportation Operations Program Area budget went up significantly. Overall, between both projects, there was a slight decrease in funding while still providing the on-going level of effort from previous fiscal years.

The Transportation Operations Program incorporates Transportation Systems Management and Operations (TSMO) strategies to help proactively manage the transportation system by addressing recurring and non-recurring congestion which results in trip reliability, emissions reductions, improved safety, and efficiency. These principles are integrated into DVRPC's planning processes.

This year's work program is divided into four major components: Traffic Incident Management (TIM), Regional Traffic Signal Retiming, Transportation Operations Task Force (TOTF), TSMO planning efforts and technical assistance. As transportation operations activities tend to be short-term oriented, tasks listed under technical assistance are likely to change as new needs arise.

DVRPC implements Traffic Incident Management (TIM) by providing a series of focused, best-practice training and resource-sharing Traffic Incident Management sessions for incident emergency responders comprised of relevant transportation departments including Pennsylvania and New Jersey Department of Transportation, Pennsylvania Turnpike Commission, Pennsylvania and New Jersey State Police,

City of Philadelphia, local law enforcement, local fire departments, emergency medical services, county 911 communications, public works departments, towing and recovery companies, hazardous materials clean-up contractors, and other appropriate regional agencies. These sessions termed Incident Management Task Forces (IMTF) are held quarterly for 8 different groups that were established based on high traffic corridors in the region. In addition to the eight Incident Management Task Forces, DVRPC supports other efforts in the region as needed, and serves as the regional clearinghouse for regional incident management activities. IMTFs implement the planned and coordinated multi-disciplinary process to detect, respond to, and clear traffic incidents so that emergency responder safety issues are addressed, traffic flow is restored as quickly and efficiently as possible thereby reducing the duration and impacts of traffic incidents and non-recurring congestion, incident management responses are improved, and interagency coordination is fostered. Typical activities include Post-Incident debriefings, specialized training on the detection, response, and recovery of traffic incidents, and a feedback-loop for relevant construction projects and ITS deployment.

In Pennsylvania, the Philadelphia IMTF includes working with Philadelphia agencies and PennDOT to improve the operations of expressways in the city, with a major emphasis on operational planning for the reconstruction of I-95. DVRPC also continues to manage the IMTF's in Bucks County, Chester County, Delaware County and Montgomery County (with special outreach as needed for the I-76 Integrated Corridor Management Project). In New Jersey, DVRPC continues to manage the NJ SAFR (Southern Area First Responders) IMTF, which covers Gloucester and Camden Counties, and the Burlington and Mercer County IMTFs. Additionally, DVRPC participates in other incident management programs including both statewide Pennsylvania and New Jersey efforts, and IMTFs initiated by other agencies.

DVRPC will hold a Regional IMTF Conference in FY 2021 with support from regional IMTF leaders, as well as hold topical specialized training session(s) to be determined.

Traffic signals play an important role in the transportation network, and county and local arterial roadways are increasingly being called upon to carry more users. FHWA estimates that many signals on these arterials could be improved by updating equipment or by simply adjusting and updating the timing plans. Outdated or poor traffic signal timing accounts for a significant portion of traffic delay on arterials. Traffic signal retiming is one of the most cost effective ways to improve traffic flow and is one of the most basic strategies to help mitigate congestion and reduce emissions. It improves the mobility and safety of the street system, and decreases congestion and delay while improving travel time and travel time reliability.

DVRPC will continue to support the Pennsylvania Regional Signal Retiming Initiative effort by working with PennDOT District 6 and the counties to choose corridors for retiming, provide cost/benefit emissions benefit data, and serve on the project team.

DVRPC will be supporting the New Jersey Regional Signal Retiming Initiative Program by working with a consultant and stakeholder team to choose corridors for retiming and serve on the project team as coordinator.

Quarterly meetings of DVRPC's Transportation Operations Task Force (TOTF) are the focal point of coordinating transportation operations activities in the region, providing highway and transit operators and emergency responders an opportunity to interact with each other. The Task Force is a forum for agencies to share information on various TSMO and ITS deployments and incident management programs, develop a consensus on regional ITS issues and respond to federal initiatives. As a technical-level group, it may often guide DVRPC's Transportation Operations planning activities that in turn support the Task Force members.

As an ongoing TSMO planning effort to support our stakeholders, DVRPC continues to either maintain or update several regional operational efforts such as the Regional ITS Architecture, Transportation Systems Management and Operations Master Plan, and PennDOT District 6-0 Regional Operations Plan.

As part of project development, staff review and make recommendations for DOT infrastructure projects to incorporate ITS and TSMO operational improvements. In FY 2021, DVRPC will continue to produce periodic bulletins to highlight incident management and transportation operations data as available. DVRPC will continue to provide planning and technical assistance on transportation operations for partners as requested. In addition, DVRPC will continue to investigate innovative programs related to transportation systems management and operations.

This work program is subdivided by the four components described above. Some of these activities may require DVRPC to purchase equipment and/or services.

Tasks:

Incident Management Task Forces Tasks

1. Continue to manage and implement resource sharing for the 5 Pennsylvania (Bucks, Chester, Delaware, Montgomery and Philadelphia County) and 3 New Jersey (Burlington, Mercer and NJ SAFR) Traffic Incident Management Task Forces as an on-going training program.
2. Prepare notices for each session, identify and line up speakers, develop agendas, and prepare summaries and training materials and distribute to all stakeholders.
3. At each session, conduct Post-Incident debriefings a.k.a. After Action Reviews (AARs) which examine events that occurred in the past in order to review and assess the process, procedures and actions performed, and to identify best practices, lessons learned, and potential new protocols which will reduce delay.
4. Work with the task forces to address operational and traffic management issues as needed that may include ITS equipment deficiencies, detour routes, traffic management plans, incident management plans, incident management policy and procedures, communications, and work zone traffic management.
5. Educate Responders regarding Active Traffic Management strategies, including working with PennDOT project managers to bring responders and design

- consultants together to engage responders in identifying issues to consider in the final design of relevant capital projects and ITS deployment.
6. Construction Project Coordination Discussions bring together responders and construction projects managers and implementers to review construction and work zone stages, address incident response zones and identify different ways to access a crash in a work zone if needed.
 7. TIM Performance Measure Data Analysis. Work with partner agencies and collect TIM data regarding time of lane closures, and incident duration. These measures will be tracked and measured over time and will be presented and or produced in periodic data bulletins.
 8. Promote and provide the PA and NJ Statewide Responder Training sessions, specialized training session(s) to be determined, and various online TIM Training efforts.
 9. Social Media awareness campaigns for quick clearance
 10. Hold Regional TIM Conference. Identify topics and speakers, prepare all materials, and arrange training demonstration.
 11. Participate in New Jersey's Statewide Traffic Incident Management Program and Pennsylvania's PennTime Program and any other TIM programs initiated by state agencies and other agencies.
 12. Provide technical support, including mapping services, GIS, and other assistance as requested.

Traffic Signal Optimization Tasks

1. Provide technical and policy assistance to PennDOT as it advances the concept of retiming and optimizing traffic signals on a regional basis for Pennsylvania's DVRPC Counties. Attend relevant meetings as requested.
2. In cooperation with PennDOT and DVRPC's Pennsylvania counties, select which traffic signals will be chosen for retiming.
3. Provide technical and policy assistance to the New Jersey Regional Signal Retiming Initiative Program.
4. In cooperation with NJDOT, and NJ's DVRPC Counties, select which traffic signals on 500 and 600 numbered routes will be chosen for retiming.
5. Participate in all kick-off, planning, and coordination meetings related to the regional program.

Transportation Operation Task Force

1. Host the quarterly Transportation Operations Task Force. Prepare notices, agendas, identify specialized topics, arrange speakers, prepare and distribute summary materials
2. Support multimodal planning efforts and coordination with various transportation agencies
3. Promote and educate regional agencies and public on TSMO strategies such as active traffic management principles and issues.
4. Continue the regional construction coordination efforts to minimize traffic impacts of overlapping construction projects.
5. Provide a feedback loop to DOT's and other transportation operators on design and operational issues for relevant construction projects and ITS deployment.

TSMO Planning Efforts

1. Maintain the Regional ITS Architecture for the Delaware Valley. Work with local stakeholders to ensure consistency between the regional architectures and their project architectures. Continue to coordinate with NJTPA, NJDOT, and PennDOT with their regional and statewide ITS Architecture updates.
2. Update and/or maintain the Transportation Systems Management and Operations Master Plan as needed in coordination with the Long Range Plan updates.
3. Coordinate with PennDOT District 6-0 Traffic Operations, and assist them with maintaining their Regional Operations Plan (ROP)
4. As part of project development, staff review and make recommendations for DOT infrastructure projects to incorporate ITS and TSMO operational improvements.
5. Continue to incorporate TSMO, including ITS investments, into the transportation planning process. Evaluate capital projects for their consistency with the Transportation Systems Management and Operations Master Plan and assist agencies to advance projects identified in the Plan, PennDOT's Regional Operations Plan, or in the Regional ITS Architecture.
6. Monitor federal ITS programs, regulations, and initiatives to identify which ones may impact projects in the region.
7. Perform other activities as requested by NJDOT, PennDOT, operating agencies, or other member governments.

Products:

Transportation Operations Task Force Products

1. Transportation Operations Task Force meeting agendas, summaries, and meeting materials.
2. Regional Operating Agency Contact List
3. Provide topical specialized training session(s) to be determined.

Incident Management Task Force Products

1. Incident management task force training session's agendas, summaries, and resource materials.
2. IMTF policy and procedures guidelines, training aids, maps depicting response areas, and other relevant materials identified by IMTF members.
3. AARs summaries for distribution to all task force members to inform them of best practices, lessons learned, and possible new protocols to reduce traffic delay.
4. Conduct expanded Formal After Action Reviews and prepare reports
5. Traffic congestion analysis
6. Incident Duration and lane closure tracking analysis
7. Produce periodic bulletins to highlight incident management and transportation operations data as available.
8. Roster and contact information of regional emergency agencies
9. Marketing Materials such as the Social Media Campaign Tool Kit for Quick Clearance and Move Over Laws

Traffic Signal Optimization Products

1. MOUs, Concept of Operations, memorandums, and final reports, developed for both the Pennsylvania and New Jersey Regional Signal Retiming Initiative Programs.

TSMO Planning Efforts

1. Maintenance of the ITS Regional Architecture.
2. Maintenance of the TSMO Master Plan.
3. Implementations of programs to foster interagency cooperation.
4. Technical assistance to agencies.

Beneficiaries:

Member governments and agencies, including PennDOT, NJDOT, transit agencies, County Planning Agencies, and citizens served by a more efficient and reliable transportation network.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020					
2021	\$552,950	\$122,422	\$34,278	\$1,250	\$395,000
2022	\$552,950				
2023	\$552,950				

*PennDOT FTA - \$5,000; PA TIP - MPMS #114967 - \$208,000 CAQ/\$52,000 State 581 NJ TIP - DB D2004 - \$130,000 STBGP-PHILA

PROJECT: 21-41-050 Competitive Program and Project Management

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: John Coscia

Project Manager: Daniel Snyder, Joseph Banks, Ryan Gallagher

Goals:

To ensure the timely selection and delivery of traditional and non-traditional local projects in an effort to enhance the transportation system within our region.

Description:

Funding from a Transportation Improvement Program line item enables DVRPC staff to assist PennDOT with the implementation of traditional and non-traditional projects by serving as adjunct project and program managers. This assistance will generally involve facilitation and coordination among the project sponsor and their team, local governments, the public, the PennDOT district office, PennDOT's central office staff, and the FHWA in order to develop a project to the point of construction.

The current federal authorizing legislation for highways and transit includes funding for bicycle and pedestrian transportation projects such as multi-use trails, streetscapes, bike lanes and historic transportation structure restorations, as well as projects that contribute to the attainment of the Clean Air Act by reducing emissions from highway sources. The three current categories of federal funding for these non-traditional transportation projects are: Transportation Alternatives Set Aside, Congestion Mitigation and Air Quality, and the Surface Transportation Program.

TIP funds are also provided to the sub-regions through the Local Concept Development and Highway Safety Improvement Programs in New Jersey. The goal of the Local Concept Development program is to complete a study that identifies potential alternatives, identifies any environmental issues, and completes a conceptual design. This will ensure that projects that move into Preliminary Engineering are ready to move forward in a timely manner and are eligible for inclusion in the State Transportation Improvement Program (STIP). As part of this work, staff will also continue to assist counties and municipalities with Federal Aid Highway Program requirement compliance.

For more information, see the following website:
<http://www.dvrpc.org/ProjectImplementation/>

Tasks:

1. For each program, as appropriate, establish a Steering Committee and develop a process for project application and selection.
2. Develop project application and guidance materials in coordination with the DOTs.

Establish evaluation criteria and process. Solicit, screen, and evaluate candidate projects.

3. Conduct public information sessions, respond to questions, and provide assistance to applicants, as appropriate.
4. Recommend selected projects to the DVRPC Board.
5. Prepare requests for proposals, solicit proposals, and in concert with the appropriate county, evaluate proposals received.
6. Prepare consultant selection documentation and files, when required.
7. Prepare consultant agreements, establish accounting procedures, arrange methods of progress, and expenditure reporting, when required.
8. Coordinate activities leading to the implementation of the project within its planned time frame, maintain costs within the budget, and ensure that applicable federal and state standards are observed.
9. Submit the consultant’s final documents to the DOTs for approval. DVRPC, in cooperation with the DOTs, will prepare and submit when required, the appropriate documents for federal approval on each project phase.
10. Work with the DOTs to update schedules, costs, and statuses of each project in the respective DOT system, as needed.
11. Prepare status reports that will be posted on the DVRPC website.

Products:

1. Program Guidance/Workshops.
2. Recommended list of projects for funding.
3. Project Agreements.
4. Progress Reports.
5. Project Management Database.
6. Completed Construction Projects.

Beneficiaries:

State DOTs, member governments, transit operators, municipalities, non-profit groups, etc.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$1,210,000	\$70,000			\$1,140,000
2021	\$1,249,500	\$59,500			\$1,190,000
2022	\$1,249,500				
2023	\$1,249,500				

*PA TIP - MPMS #66460 - \$712,000 STU/\$178,000 State 581; MPMS #66461 - \$120,000 CMAQ/\$30,000 State 581 NJ TIP - DB #X30A - \$150,000 STBGP-PHILA

PROJECT: 21-51-010 Travel and Land Use Modeling

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Matthew Gates

Project Manager: Fang Yuan

Goals:

Support the economic vitality of the region, increase safety for all users, improve accessibility for people and freight, protect the environment, enhance connectivity between modes, and promote the efficient management and operation of the existing transportation system through the development and use of transportation, air quality, economic development and land use models.

Description:

The Travel Model work program area develops, enhances, and maintains DVRPC's Land Use, Travel Demand, Economic Development, and Air Quality Models in support of regional planning activities. Short and long-range regional, corridor, and facility planning studies require accurate socioeconomic, land use, and travel data. The models that produce these forecasts need to be calibrated and validated with current data. Validation and refinement of DVRPC's land use, travel simulation, and mobile source emissions models are needed on a continuing basis to maintain the accuracy and credibility of forecasts and to respond to new mandates and guidance from the federal government, state agencies, and member governments.

Major activities include collecting travel data and statistics, preparing highway and transit networks, validating travel simulation models, implementing new forecasting procedures and methods, applying the models to produce forecasts for various planning projects, and serving as a repository for socio-economic, travel, and air quality related data. Major model outputs include highway and transit facility volumes, regional and corridor travel patterns, estimates of vehicle-miles of travel by vehicle type and functional class, and transit ridership statistics. Current and projected land use patterns and highway and transit network model inputs are updated as required and the models are applied on an ongoing basis in support of regional and corridor planning studies, facility design data requests, transportation air quality conformity demonstrations, land use impact studies, highway and transit traffic studies, bicycle and pedestrian facility planning, and other planning activities.

DVRPC undertakes a continuous program of travel model maintenance, development, and enhancement. Socio-economic, land use, travel, and transportation-related data are collected, analyzed, and incorporated into DVRPC's models on a regular basis. These data include travel trends, traffic volumes, transit ridership, travel times, fares, operating costs, tolls, parking charges, freight movements, changes in transit service patterns and schedules and changes to highway facilities or operations due to construction or reconstruction. New modeling procedures and methods due to changes in the state-of-the practice, software

updates, or new guidance from FHWA, FTA, EPA, or others are evaluated and implemented.

Some of these activities may require DVRPC to purchase equipment or services, including software maintenance for PTV VISUM & VISSIM, and DaySim software and NETS employment and CoStar real estate databases.

Tasks:

1. Collect data on traffic volumes including autos, trucks, bikes, pedestrians, and transit riders by direction and time of day.
2. Collect, tabulate, and analyze travel time data for selected corridors from Traffic.com, INRIX, HERE, and other sources.
3. Collect other transportation data, including vehicle-miles of travel, journey-to-work, parking shed, external travel, tolls and fares, and trip length frequency.
4. Update highway and transit networks for base and future years, to reflect federal functional class changes, and TIP and Plan project changes; updated tolls, fares, and parking charges.
5. Collect data on employment and land use changes.
6. Revise zonal demographic and employment data and forecasts, including extended model area, as needed.
7. Update vehicle registration, age distributions, fuel, I/M programs, and other inputs for air quality post-processor and MOVES model, as needed.
8. Prepare air quality conformity demonstrations and SIP revisions as needed using the MOVES2014b air quality model.
9. Analyze bike, pedestrian, transit, and highway projects, as required.
10. Prepare estimates of truck and bus travel, as needed.
11. Prepare growth factors as required to support regional planning and engineering efforts.
12. Prepare trip tables, select-link analysis, and other travel model tabulations, as required.
13. Respond to other member governments and planning partners requests for socio-economic, travel, and transportation system data and statistics.
14. Update transportation-related data and parameters for UrbanSIM and other land use and economic impact tools, as needed.

Products:

1. Summaries of screenline traffic volumes, VMT, and transit ridership.
2. Summaries of corridor travel times.
3. Base and future-year highway and transit networks.
4. Summaries of the results of air quality conformity demonstrations.
5. Travel patterns, volumes, statistics, etc. for data request and to support member governments and other DVRPC planning efforts.
6. Average annual growth factors by County and Functional class.
7. Growth rates and other model data to support planning efforts as required.
8. Up-to-data travel model documentation.

Beneficiaries:

State DOTs, transit operators, member counties and cities, and local governments.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$496,250	\$384,723	\$105,277	\$1,250	\$5,000
2021	\$447,250	\$344,531	\$96,469	\$1,250	\$5,000
2022	\$447,250				
2023	\$447,250				

*PennDOT FTA

PROJECT: 21-52-010 Regional Transit Planning Program

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Betsy Mastaglio

Project Manager: Amy Bernknopf, Thomas Stead

Goals:

Perform transit planning work on behalf of DVRPC's member governments that reflects and advances industry best practices. Support the integrated consideration of transit access and mobility with smart land use planning. Leverage the technical capabilities of DVRPC to develop and share planning tools that make good-practice thinking and analysis more accessible to local partners and the public.

Description:

The Regional Transit Planning Program funds a coordinated program of transit planning projects requested annually by DVRPC's member governments, including evaluations of proposed services or facilities, corridor level transit analysis, evaluations of enhancements to transit access, studies to improve bicycle and pedestrian connectivity with transit, and examinations of the relationship between land use and transit for specific sites or corridors. To the degree appropriate for a given task or project, work will be approached in an integrated way, drawing on staff expertise across DVRPC offices or partner agencies to best meet the needs of the planning partner. Work tasks may range from data/quantitative analysis to concept-level facility and service design and visualization. Some of these activities may also require DVRPC to purchase equipment and/or services to meet program goals.

One element that is central to this program is the development of new data-driven tools to inform investment decisions and local decisionmaking by making technical concepts more accessible to nontechnical audiences. Prior examples of this type of work include: the Network Gap Analysis and other tools created through the Regional Transit Screening Platform project, the Transit Signal Priority (TSP) Favorability Score, and RideScore. Each of these efforts has expanded our regional toolkit to assist planning partners and members of the public in understanding and prioritizing investments.

This program also supports data collection, processing, and sharing activities wherever possible: passenger intercept, parking shed, and station-area observations are essential for the analysis of transit in the region. This data collection and analysis may include transit stations and their surrounding land use, ridership, parking, and related data. Surveys conducted in coordination with DVRPC's Office of Travel Monitoring, Office of Modeling and Analysis, and our planning partners may support specific planning studies as well as transportation modeling efforts and the evaluation of transit alternatives in the region.

Federal and state guidance puts an emphasis on the regional coordination of investments made to improve transportation access by disadvantaged populations.

This may include projects formerly funded under the Federal Transit Administration (FTA)'s Job Access and Reverse Commute (JARC) program, which may now be funded under the FTA Section 5307 Urbanized Area Formula Program or state level New Jersey JARC program, and the FTA Enhanced Mobility for Seniors and Individuals with Disabilities (Section 5310) program. The Regional Transit Planning Program supports DVRPC participation in project development and prioritization for Coordinated Human Services Transportation Planning (CHSTP) programs in Pennsylvania and New Jersey, as well as regional analysis and Coordinated Plan updates, including the Equity Through Access (ETA) program.

Tasks:

1. Continue to support SEPTA and counties in assessing the feasibility of expanding Direct Bus service, currently operating on Roosevelt Boulevard, to additional suitable corridors. This Phase 2 work could include developing routing and station location plans and schedules for one early-action corridor, and identifying infrastructure improvements critical to implementing new routes.
2. Provide technical and in-person staff support for NJ TRANSIT passenger survey work.
3. Provide continuing support to SEPTA and other local partners on issues related to SEPTA's trolley modernization program for the City of Philadelphia and Delaware County.
4. Provide ongoing DVRPC participation in and project support for City of Philadelphia-SEPTA "Connect"/Transit First efforts, including participation in collaborative committees.
5. Provide Subject Matter Expert (SME) review for potential transit facilities and connections for PennDOT projects through the PennDOT Connects program.
6. Oversee the Regional Transit Advisory Committee (RTAC) as a subcommittee of the Regional Technical Committee (RTC), comprised of regional transit operators, FTA, and county representatives (with feedback from Transportation Management Associations [TMAs] and representatives of the DVRPC Public Participation Task Force as appropriate) to meet as needed and to develop and prioritize additional work tasks to be conducted under this program, when capacity permits.
7. Review, assess, generate, and apply innovative or state-of-the-art planning practices. Develop new means of analyzing data to meet the changing requirements of integrated transit, bicycle/pedestrian, and land use planning.
8. Ensure that appropriate technical resources (such as new software) are available for staff use as new best practices develop.
9. Work with state and regional planning partners (PennDOT, SEPTA, PATCO, and NJ TRANSIT) to participate in regional CHSTP project development, prioritization, and selection rounds as appropriate.

Products:

1. Technical memo(s) or datasets for Direct Bus service proposal(s).
2. Member government and planning partner outreach and coordination in identifying, scoping, and conducting new studies in support of partner goals.
3. Coordination with planning partners to provide specific expertise in support of planning efforts, including Alternatives Analyses, and other evaluation or project

support.

4. Planning/policy documents, technical reports, white papers, and/or memorandums with findings and recommendations.

5. Data from survey and other data collection efforts in support of agency projects.

6. As-needed meetings and communications with the RTAC to develop work tasks and update timetables and statuses.

7. As-needed meetings and communications with member governments to coordinate transit projects and initiatives throughout the region.

Beneficiaries:

Member governments, SEPTA, PATCO, NJ TRANSIT, and the transit-riding public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$306,250		\$280,000	\$21,250	\$5,000
2021	\$276,250		\$250,000	\$21,250	\$5,000
2022	\$276,250				
2023	\$276,250				

*PennDOT FTA

PROJECT: 21-52-020 Bicycle and Pedestrian Planning Program

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Betsy Mastaglio

Project Manager: Cassidy Boulan, Sarah Moran

Goals:

Promote transportation facilities and land use decisions that make active modes of transportation more safe, convenient, affordable, and attractive options throughout the region.

Description:

DVRPC seeks to create an environment where people of all ages choose to bike and walk as part of an active, healthy, and environmentally-friendly lifestyle. The main priorities of this program are to work with municipalities, counties, and our planning partners to develop and maintain safe bicycle and pedestrian facilities that enhance local mobility. Work will be integrated across DVRPC offices or partner agencies to best meet the needs of the planning partner.

Projects will emphasize stakeholder outreach, the development and sharing of new data resources using bicycle and pedestrian counters, and the conduct of analysis to develop appropriate, safe, and context-sensitive bicycle and pedestrian facilities and complete streets in communities throughout the DVRPC region. This program also supports DVRPC's participation in state, regional, and local bicycle and pedestrian advisory or policy committees, helping to shape and promote constructive bicycle and pedestrian direction and policy. Some of these activities may also require DVRPC to purchase equipment or services to meet program goals.

As an area of focus, this work includes an emphasis on Active Transportation and Active Places—the idea that those places where walking and biking (Active Transportation) are prevalent are good for the vibrancy and quality of life of a community (Active Places), and vice versa. With this integrated approach, communities gain health benefits, increased mobility, economic stability, and an overall sense of vibrancy.

Tasks:

1. As requested by the Delaware County Planning Department, support the development and promotion of Dixi, a beta bike routing service that provides detailed trip instructions for cyclists in the region based on their stated level of comfort bicycling. The platform will use DVRPC's Level of Traffic Stress mapping to inform recommended trip routing.
2. Provide ongoing support and collaboration with regional partners in PA and NJ to advance a coordinated bike share program across the region.
3. Conduct analysis and prioritization of sidewalk gaps using regional sidewalk inventory data. As technical capacity permits, one component of this work will be to conduct a network connectivity analysis similar to the DVRPC bicycle low-stress

connectivity analysis, to quantify every sidewalk gap's impact on average route directness for available pedestrian routes, if improved (e.g., number of new connections that would be enabled). This task also supports use and application of regional sidewalk inventory data in planning studies.

4. Develop a strategy for a new regional funding program to close sidewalk gaps, using the regional sidewalk inventory and Task 3 analysis work as a foundation.

5. Support partner agencies in using DVRPC pedestrian and bicycle planning tools such as the Bicycle LTS and Connectivity Analysis webtool.

6. Together with the Office of Travel Monitoring, continue bicycle and pedestrian count work including:

- Conduct counts at roughly 1/3 of the locations for the Cyclical Pedestrian Counting program in the PA counties
- Conduct counts at roughly 1/3 of the locations for the regional cyclical bicycle count program
- Provide periodic summaries of trends, before/after, and other relevant summaries analyzed from DVRPC's bicycle and pedestrian count program with the aim of making count data more accessible and understandable to the broadest range of planning partners, including NJDOT, PennDOT, counties, municipalities, and the general public working to improve bicycle and pedestrian infrastructure.
- Conduct project counts throughout the region, as needed and as capacity permits.

7. Participate and support pedestrian and bicycle advisory boards: the NJ Bicycle and Pedestrian Advisory Council (NJ BPAC) in New Jersey and Pennsylvania Pedalcycle and Pedestrian Advisory Committee (PPAC) in Pennsylvania; continue to chair and coordinate NJ BPAC Design/Infrastructure Subcommittee, and support member government efforts in Complete Streets, Vision Zero, green stormwater infrastructure, and placemaking.

8. Review bicycle and pedestrian project funding applications as appropriate for programs such as TAP, SRTS, and Pennsylvania's Multimodal Transportation Fund.

9. Provide Subject Matter Expert (SME) review and comment on potential pedestrian and bicycle facilities for PennDOT projects through the PennDOT Connects program.

10. Projects may be jointly funded, and conducted collaboratively, with the Regional Transit Planning Program.

Products:

1. Complete planning/policy documents, technical reports, white papers, and/or memorandums with findings and recommendations, as appropriate.

2. Memorandums of Understanding, Requests for Proposals, and other appropriate outreach templates for soliciting bike share vendor(s) within the region.

3. Completed sidewalk inventory for the region with gap analysis summarized on-line, in a technical memo, and/or summary mapping of analysis.

4. Survey and data collection in support of agency projects.

5. Other technical work for regional stakeholders as required.

Beneficiaries:

State DOTs, transit operators, counties, municipalities, pedestrians, bicyclists, the commuting public, and all users of roadways.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$336,250	\$259,099	\$70,901	\$1,250	\$5,000
2021	\$361,750	\$219,141	\$61,359	\$1,250	\$80,000
2022	\$361,750				
2023	\$361,750				

*PennDOT FTA - \$5,000, PA TIP MPMS #108534 - \$50,000 STU/Toll Credit Match, NJ TIP - DB #D1706 - \$25,000 STBGP - PHILA

PROJECT: 21-52-030 Corridor Planning Program

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Sarah Moran

Project Manager: Al Beatty, Camden Palvino, Kelsey McElduff

Goals:

The purpose of this Program is to support DVRPC's Long-Range Plan, Connections 2045, the DOTs' land use and transportation linkage initiatives, and member government planning and implementation activities; explore innovative approaches to help implement the long-range land use and transportation plan; and help communities plan for a sustainable future. This program seeks to alleviate congestion and improve the accessibility, efficiency, and safety of the existing transportation network for all modes, and inform local governments, affected stakeholders, and the public about current best practices to achieve effective corridor and area plans that link land use and transportation goals and policies.

Description:

This program is the nexus between the Long-Range Plan and project development. Corridor Planning takes needs that are identified in the Long-Range Plan and congestion management process (CMP), refines the understanding of those needs, and evaluates potential strategies to address them. The process is designed to better inform regional and local transportation and land use decision-making.

This program is multifaceted. It will examine and analyze specific corridors and local areas, as well as explore innovative approaches that seek transportation and land use planning integration in order to better manage growth in the region. Moreover, the program will strive to improve access to and efficiency of the region's transportation system for all modes, improve mobility and safety, and manage congestion. Components of Corridor Planning will be conducted with the collaboration of federal, state, and local planners, officials, the development community, and other stakeholders, as deemed appropriate. The Corridor Planning Program includes providing both technical and policy guidance on best practices addressing mobility, access, growth, development, zoning, and community design. Corridors and areas to be evaluated are based on long range plan and CMP determinations, as well as county and state recommendations.

With an eye towards implementation, this program will support DVRPC's participation in the PennDOT Connects process to improve the coordination and efficiency of project implementation and make the best use of available transportation funds. For example, in Pennsylvania, DVRPC will continue to work with PennDOT District 6 and County/City planning partners to coordinate the Bike-Friendly Resurfacing Program. This program identifies opportunities to make bike-friendly improvements as part of regularly scheduled maintenance projects and facilitates communication between municipalities and PennDOT to help implement bicycle network plans. DVRPC will also continue to assist PennDOT with project

screenings through the Project Initiation Form (PIF) process. In New Jersey, DVRPC will continue to work with Mercer County, as outlined in the task below, to identify locations where existing infrastructure presents challenges in the implementation of bicycle improvements and develop concepts to work through these challenges. Efforts under this program may require the purchase of hardware, software, equipment, and/or services.

Tasks:

1. Mercer County has expressed interest in making investments to improve their bicycle network. In some locations, however, the existing infrastructure cannot physically or safely accommodate bicycle-related improvements within the roadway right-of-way. After a successful pilot, DVRPC staff will continue to work with the county in identifying these problematic locations and will conduct technical work to develop planning-level design concepts that improve safety and connectivity of the current multimodal network. Concept refinement may require capacity analysis to assess the impacts of lane configuration changes on traffic movements. Specific tasks may include:

- a. Identify study locations for analysis by DVRPC staff.
- b. Perform a crash analysis, speed study, and conduct field work as appropriate to better understand existing issues.
- c. Conduct turning movement traffic counts at key intersections to be used in modeling efforts.
- d. Identify and document existing or planned transportation infrastructure (roadway geometry, signals, transit) in the area.
- e. Prepare a microsimulation model including roadway and intersection geometry, traffic control and signal timing plans.
- f. Develop conceptual plans and diagrams for roadway configuration alternatives and other treatments that incorporate bicycle striping and other infrastructure.
- g. Evaluate the impact of proposed treatments on traffic flow, producing performance measures such as delay/level of service and queuing.
- h. Evaluate the impact of proposed treatments on multimodal network accessibility, safety, and quality.
- i. Prepare planning-level cost estimates for proposed treatments.
- j. Identify opportunities for implementation, including funding opportunities and stakeholder/agency roles.

2. This program area will supplement the Downingtown Area Transportation study (21-52-080) in Chester County as needed. This project, continuing from FY2020, will evaluate peak hour traffic conditions in the study area to inform the public and municipal decision makers of the likely impacts of area growth and provide analysis for county and municipal officials to support further study and funding.

3. This program area will also supplement the continuation of the Pottstown High Street Corridor Study (21-52-060) in support of the Pottstown Metropolitan Regional Planning Committee (PMRPC). The second year of the study will include technical analysis on identified problems, development of recommendations, presentation of findings to the PMRPC and other project stakeholders, and the development of an

action plan for the recommended improvements.

Products:

- 1. Corridor or area study memorandums and reports that identify deficiencies and an implementation strategy to address them. The steering committee and public participation processes will also be documented.
- 2. Coordination of plan elements with affected state departments of transportation, local governments, operating agencies, and other groups.
- 3. Handouts and/or PowerPoint presentations for steering committees and for public presentations.
- 4. Findings and lessons learned from the identified studies will be incorporated into DVRPC's continuing corridor planning work.

Beneficiaries:

Member governments, DOTs, operating agencies, municipal governments, study area residents, businesses, and workers.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$746,250	\$565,308	\$154,692	\$21,250	\$5,000
2021	\$672,250	\$504,687	\$141,313	\$21,250	\$5,000
2022	\$672,250				
2023	\$672,250				

*PennDOT FTA

PROJECT: 21-52-040 Regional Transportation Demand Management (TDM) Program

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Stacy Bartels

Project Manager: Amy Bernknopf

Goals:

This program supports the implementation of a new regional Transportation Demand Management (TDM) Program, with strategic planning and coordination tasks funded separately under project 21-52-050. This program's purview includes traditional TDM activities with demonstrated single-occupant vehicle (SOV) trip reduction benefit as well as pilots for new TDM projects and tools to manage demand and create and cultivate new mobility opportunities for residents and workers. DVRPC will also manage several new TDM-specific efforts, as appropriate, which may involve the cooperation of and coordination with current and other potential partners to implement.

Description:

TDM focuses on the many options available to residents to travel to and from work, as well as to get around our region, in a coordinated, cost-effective, and environmentally-positive way. It centers on the strategies that more efficiently distribute travel demand across all modes, and especially reduce single-occupant vehicle (SOV) travel. An important element of TDM is providing public education and outreach to commuters, employers, residents and visitors within our region about available travel options, and providing a mix of incentives to encourage behavior change toward more efficient use of the regional transportation system. Traditional TDM strategies include public transportation and biking/walking incentives, forming car and van pools – often facilitated by robust park-and-ride lot options – as well as encouraging adding flextime and compressed work weeks, telework plans, and emergency ride home programs into an employer's benefits package.

The time is right for a fresh approach to TDM in the DVRPC region. Recent major technological developments have changed the way the public considers and makes transportation choices. Mapping applications in wide use like Waze and Google Maps are themselves a form of TDM, enabling a more efficient use of transportation networks but not reducing SOV demand. New mobility options like ride-hailing services (uber, lyft, etc.), bike share, and e-bike and e-scooter rentals are being developed and evolving rapidly, and are increasingly linked into shared scheduling and trip purchasing platforms – “mobility as a service (MaaS).” These new technologies and modes, and the changes to travel patterns they have enabled, have also led to more exploration of larger TDM-related policy initiatives and Transportation Control Measures (TCM), such as variable road pricing, trip-reduction ordinances, and transit benefit ordinance requirements. All of these conditions warrant a fresh consideration of which TDM or TCM strategies can work

most effectively in the greater Philadelphia region.

Although DVRPC has long included TDM as an element in many individual projects and efforts, there has not been, to date, a formal, coordinated TDM program for the full DVRPC service region. This new coordinated program of projects and activities will help DVRPC and its planning partners better address growing transportation-related needs and challenges, particularly the need to reduce congestion and improve air quality. In coordination with the development of the Commission's 2050 Long-Range Plan, new regional TDM direction and efforts will allow for a broad and strategic approach to TDM in the region, which differs from the mostly ad hoc and service area-based approach used now.

A performance-based and outcome-driven approach to evaluating and undertaking projects will help staff and stakeholders strengthen existing TDM programs, and pilot new initiatives that can serve as a foundation for the future regional TDM portfolio.

CMAQ-funded activities carried out through this program are eligible under FHWA's 2013 CMAQ Guidance VII.F.5. Transportation Control Measures; VII.F.8. Travel Demand Management; and VII.F.9. Public Education and Outreach Activities. Additional Innovative Projects, to be determined, may also be eligible for the use of CMAQ funding under section VII.F.16.

Tasks:

1. With planning tasks funded under project 21-52-050, DVRPC will work with partners as appropriate to implement one or two new TDM initiatives in the first year, with demonstrable air quality benefits in both states. This may include managing possible vendor/provider contracts.
2. Pursue at least one, but could be more, of the following new projects for trial, evaluation, and growth – as the budget allows. All projects listed below are eligible and consistent with FHWA's 2013 CMAQ Guidance VII.F.5, VII.F.8, VII.F.9, and VII.F.16, as noted above. Possible efforts for this first FY could include, but are not limited to:
 - a. Newly-targeted efforts to educate the public, local elected officials, and businesses about transportation mode choices, focusing on those programs that reduce congestion and improve air quality;
 - b. A pilot program to address first/last mile transit access issues and solutions;
 - c. A pilot subsidizing non-SOV travel in fringe markets for fixed-route transit, such as shared ride-hailing trips;
 - d. A pilot program funding traffic calming treatments and other elements to create low-stress bike routes on neighborhood streets that parallel congested corridors, in order to make bicycling more attractive as a commute option;
 - e. Implementing and overseeing a telework resource center for employers;
 - f. A trial program for incentive-based commute tracking to encourage alternate commutes and track the impact of those who participate.
3. Record requested data to support analysis of each activity's impact on AQ.

Products:

- 1. Implementation of new pilot programs under the regional TDM program umbrella
- 2. Progress reports; technical briefs/white papers
- 3. Data to measure air quality impact for new initiatives and pilots.

Beneficiaries:

DOTs; State, County, and City partners; transit agencies; TMAs; employers; commuters; residents.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2021	\$312,500				\$312,500
2022	\$312,500				
2023	\$312,500				

*PA TIP - MPMS #114939 - \$250,000 (\$200,000 CAQ/\$50,000 State 581), NJ
TIP- DB# D2005 - \$50,000 CMAQ, \$12,500 DVRPC Local Fund

PROJECT: 21-53-010 Travel Monitoring

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Joshua Rocks

Project Manager: Charles Henry

Goals:

Improve efficiency of the region's transportation system by collecting and analyzing traffic data to determine the utilization of the region's transportation network.

Description:

This ongoing regional program collects and processes travel data, the primary form being traffic counts, including hourly and 48-hour traffic volumes, for selected locations on the regional highway network. Data collected will provide input to VMT forecasting, the Traffic Monitoring System (TMS), the Congestion Management System (CMS), travel simulation models, individual project level analysis, traffic monitoring, and trend analysis. This information is vital to all project studies that address highway deficiencies and proposed solutions. Traffic count information from the database may be queried at <http://www.dvrpc.org/traffic>. The program is supported by funding from various sources. Because this is a regional program, the federal PL funds help support the operations and infrastructure required as base elements to run a travel monitoring program region wide. These base elements include the leases on a fleet of travel monitoring vehicles, operations and maintenance of those vehicles, an inventory of data collection and safety equipment, editing, processing and uploading of the count data into the database system which feeds the count viewers on the DVRPC website

To facilitate uninterrupted data collection, it will be necessary to procure new counting equipment, supplies, repairs, or services as needed.

Tasks:

1. Coordinate with PennDOT and member governments to review traffic count locations.
2. Establish weekly schedules, staff assignments, and control procedures.
3. Collect traffic data at approximately 3,000 selected locations.
4. Upload data into the DVRPC Traffic Count system, process counts, edit for quality control, and develop annual average daily traffic volumes.
5. Maintain and further automate traffic data systems and procedures to enhance productivity, including data obtained by third parties via remote sensors, etc.
6. Submit counts collected during the year electronically by specific deadlines established by PennDOT and member governments.
7. Input traffic count data files into the comprehensive regional GIS-T database for sharing over the Internet.
8. Maintain an inventory of data collection and safety equipment, including purchasing new equipment with enhanced technology and capability, purchasing needed supplies such as road tube, and procuring necessary repairs if existing

equipment gets damaged.

9. Collect travel data from non-highway modes, including pedestrian, bicycle and public transportation travel system characteristics and user traits as requested.

10. DVRPC will also coordinate with PennDOT, the counties, and cities on the collection and validation of data on the local transportation asset inventory (as requested).

Products:

- 1. Computer database file containing new and historic traffic counts.
- 2. Transmittals of traffic data to DOTs, member governments and interested parties.

Beneficiaries:

Member governments, operating agencies, private sector, and agency staff.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$800,000	\$655,000			\$145,000
2021	\$734,500	\$589,500			\$145,000
2022	\$734,500				
2023	\$734,500				

*PA TIP - MPMS #104639 - \$145,000 STU/Toll Credit Match



PHOTO BY PAUL CARAFIDES

CHAPTER 2B

DVRPC Project Descriptions

JUNE 2020

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PROJECT: 21-31-020 Regional Transportation GIS Coordination

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Sean Lawrence

Project Manager: Christopher Pollard

Goals:

Ensure integrated and coordinated planning and promote information sharing through the continued development and maintenance of regional transportation GIS

Description:

The focus of this continuing project will be to integrate transportation data developed by federal, state, and local governments and DVRPC into a regional database that allows for the open exchange of data. This project benefits all member governments and agencies by providing support to DVRPC to develop and coordinate transportation data development and data sharing and includes the continued growth of DVRPC's transportation GIS system, including the update and maintenance of its web mapping and data sharing capabilities. Efforts are being coordinated with NJDOT, PennDOT, member governments, and operating agencies to maximize the investments made in technology and data.

In addition, this project will support the development of data, tools, and maps to support the “total water levels” approach, riverine flooding models, and the mapping and analysis of select transportation assets carried out under the Energy and Climate Change Program area.

Completion of this project may require the purchase of equipment or services.

Tasks:

1. Coordinate regional database development with project participants, including PennDOT and NJDOT.
2. Provide technical assistance to member governments, as requested, to identify and address IT, GIS, and data issues and opportunities.
3. Facilitate meetings with project participants to discuss transportation-related issues and developments as needed.
4. Acquire additional hardware, software, and training, as appropriate.
5. Ensure that geospatial data developed by NJDOT, PennDOT, and member governments are integrated into DVRPC's regional database and can be shared among project participants.
6. Maintain transportation data and make that data available through DVRPC's GIS Portal to project participants and the public.
7. Develop and maintain web mapping applications in support of DVRPC's outreach goals.
8. Provide technical assistance to Energy and Climate Change Initiatives (Project 21-33-030).

Products:

- 1. Regional transportation-related data available to all member governments in support of their GIS programs.
- 2. Hardware, software, and training for DVRPC and participating organizations, as necessary.
- 3. Updated and new web mapping applications.
- 4. Continued enhancements and improvements to DVRPCs GIS Portal.

Beneficiaries:

State DOTs, member governments and operating agencies, the public, and DVRPC.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$400,000				\$400,000
2021	\$400,000				\$400,000
2022	\$400,000				
2023	\$400,000				

*PA TIP - MPMS #48202 - \$200,000 STU/Toll Credit Match NJ TIP - DB #X30A - \$200,000 STBGP-PHILA

PROJECT: 21-31-040 Aerial Imagery

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Glenn McNichol

Project Manager: William Stevens

Goals:

To provide a reliable source of current information regarding the region's physical characteristics and development patterns.

Description:

This project continues our 5-year aerial imagery acquisition cycle, which dates back to 1965. In FY 2020, the Aerial Imagery project provided the required administrative and planning activities in addition to acquiring a 5-year Software-as-a-Service (SaaS) license to access the Nearmap product. During FY 2021, DVRPC staff will review 2020 leaf-off flight deliverables, disseminate the products to member governments, create and execute training and support plans for member governments, and develop a web-based aerial imagery viewer. The difference in budgets between the two fiscal years is primarily the costs associated with acquiring the 5-year license to the Nearmap product.

The continued acquisition of aerial images of the Delaware Valley region offers a unique historical perspective of change throughout the region. This project provides digital orthoimagery which is integrated into geographic information systems (GIS) and other mapping applications. This orthoimagery is used by DVRPC, our member governments, operating agencies, and the public to create and update spatial data, and for cartographic purposes. It serves as an invaluable resource in support of the region's planning and mapping activities.

Planning for this project involves determining the needs of DVRPC and its member governments with regard to imagery specifications (pixel resolution, file formats, etc.). It is also necessary to evaluate technological and business changes (imagery acquisition advancements, licensed imagery options, supplemental products, etc.) that may affect the project. In addition, if feasible, the project will be coordinated with any similar imagery acquisition efforts that may be undertaken by federal or state agencies, member governments, operating agencies, or other parties.

Acquisition of hardware, software, or training may be required to take full advantage of the data.

Tasks:

1. Continue working with member governments to review imagery and supplemental imagery product needs for 2020.
2. Identify preferred imagery characteristics and other potential products such as impervious surface data (includes building footprints), LiDAR, etc. and determine

expected costs.

3. Coordinate with other interested parties, if possible.
4. Consider alternative methods for obtaining aerial imagery, such as licensed imagery products.
5. Develop all necessary administrative documents that may be required.
6. Plan for and complete vendor selection process, if required.
7. Seek to upgrade equipment necessary for imagery file distribution (web-based or otherwise), storage and hardcopy reproduction.
8. Upon acceptance of the project deliverables, staff will disseminate to member governments and operating agencies.

Products:

1. Request for Proposals, Scope of Services, and/or other administrative documents as required.
2. Orthoimagery in designated specifications and file formats.
3. Supplementary products such as impervious surface data, LiDAR, etc., if possible.
4. Web-based aerial imagery viewer application.

Beneficiaries:

All client groups.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$750,000				\$750,000
2021	\$150,000				\$150,000
2022					
2023					

*PA TIP - MPMS #48203 - \$100,000 STU/Toll Credit Match
NJ TIP - DB #X30A - \$50,000 STBGP-PHILA

PROJECT: 21-33-050 Local Technical Assistance Program (LTAP)

Responsible Agency: Delaware Valley Regional Planning Commission

Project Manager: Linda McNeffer, Melissa Andrews, Patricia Elkis

Goals:

DVRPC is the local planning partner for PennDOT’s Local Technical Assistance Program (LTAP) in southeastern Pennsylvania. The LTAP program is designed to help Pennsylvania’s municipalities, which maintain over 77,000 miles of roadways, make the best use of their roadway maintenance dollars.

Description:

The Local Technical Assistance Program (LTAP) is a national program run by the U.S. Department of Transportation that is operated in Pennsylvania by PennDOT. The program offers:

- Training: LTAP offers 33 courses about roadway maintenance and safety. For a complete list of classes, visit <https://www.dot7.state.pa.us/LTAP/default.aspx> and click “Course Info” under “LTAP Tools.”
- Road Scholar Program: If municipal employees take 10 classes within 3 years, they receive “Road Scholar” certification—a valuable professional development credential.
- Technical Assistance: LTAP technical experts are available by phone, email, or in-person to help municipalities troubleshoot specific roadway maintenance and safety problems.
- Newsletters, Technical Sheets, and Resource Library: Visit <https://www.dot7.state.pa.us/LTAP/default.aspx> and click “Public Resources and Documents” under “LTAP Tools.”
- Coordination with PennDOT; attend annual LTAP conference.

Each year, nearly 6,000 municipal employees take advantage of LTAP training and assistance in PA. In FY 2019, 585 students were trained in southeastern Pennsylvania.

Tasks:

1. Partner with PennDOT and the Pennsylvania State Association of Township Supervisors (PSATS) to market LTAP classes to municipalities, County Associations, and other similar organizations in the four suburban counties of southeastern Pennsylvania.
2. Find venues for LTAP classes and, when requested, roadshows, webinars, and other educational programs.
3. Work with municipal representatives and PennDOT personnel to identify training needs and opportunities, encourage participation among municipalities that have not participated in the past, and maximize class attendance.

4. Submit quarterly and annual reports to PennDOT.
5. Attend annual LTAP Planning Partner conference.

Products:

1. Coordination of 10-15 LTAP classes in southeast Pennsylvania per year.
2. Quarterly and annual reports to PennDOT.

Beneficiaries:

Municipalities in Bucks, Chester, Delaware, and Montgomery Counties.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$30,000				\$30,000
2021	\$30,000				\$30,000
2022	\$30,000				
2023	\$30,000				

*PA FHWA - PL/SPR/Toll Matched

**PROJECT: 21-33-070 Pennsylvania Coastal Zone Management
Implementation Program**

Responsible Agency: Delaware Valley Regional Planning Commission

Project Manager: Amy Verbofsky, Christopher Linn

Goals:

Assist the Pennsylvania CZM program as it works to protect and preserve tidal and freshwater wetlands, provide and maximize public access to coastal waters, preserve and restore historic sites and structures, minimize coastal hazard areas, manage fisheries, encourage public involvement in the management of coastal resources, ensure intergovernmental consistency with regard to regulatory issues in the Delaware Estuary Coastal Zone (DECZ), and preserve coastal lands through the use of Coastal and Estuarine Land Conservation Program funds. Assist the Pennsylvania Department of Environmental Protection (PADEP) in its efforts to achieve the above goals through legislative authority, environmental monitoring, and technical and financial assistance.

Description:

This is a continuing project to maintain regional coordination with local governments and the public to further the interests of the PADEP Coastal Zone Management Program. DVRPC will also continue to provide technical assistance to the state, its member governments, and citizens.

Through this project, DVRPC will provide support to PADEP's Coastal Resources Management (CRM) Program in implementing the Delaware Estuary component of the Coastal Zone Management (CZM) program. DVRPC shall provide coordination between the Coastal Resources Management Program, which administers the CZM program for the Commonwealth of Pennsylvania, and CZM constituents throughout the Delaware Estuary region. DVRPC will reach out to and coordinate with the local stakeholders in the Delaware Estuary. Through this collaborative effort, DVRPC will enable the CRM program to support important projects that improve water quality, enhance public enjoyment of and access to coastal resources, and mitigate the adverse impacts of stormwater runoff, extreme weather events, and non point source pollution.

DVRPC will also partner with the Coastal Resources Management Program to assist member governments, federal and state agencies, and academic institutions in understanding and preparing for the expected impacts of climate change in the coastal zone. This program will help local governments understand how climate stressors are predicted to change, assess community vulnerability, and identify strategies to increase resilience. Most of the staff time for this effort will be funded under a separate grant.

Tasks:

1. Coordinate the activities of the DECZ Advisory Committee and provide technical and administrative services.
2. Organize up to two DECZ Advisory Committee meetings during the course of the year. One of these meetings will be held to review and rank the CZM grant applications for the Delaware Estuary region.
3. Provide a mechanism for public involvement and education in the CZM Program.
4. Assist PADEP in working with eligible municipalities, agencies, and non-profit organizations to prepare and submit project applications for federal grants.
5. Attend Coastal Zone Advisory Committee (CZAC) meetings and water/environment-related meetings, committees and special events in the Delaware Valley.
6. Organize and host up to six meetings of the Urban Waterfront Action Group (UWAG).
7. Provide technical and administrative services on permitting to the Urban Waterfront Action Group (UWAG).
8. Assist the CZM Program with tasks related to Section 6217 (Coastal Nonpoint Pollution Program).
9. Coordinate with PADEP on coastal climate change resiliency planning.
10. Undertake other activities as required.

Products:

1. Mailing lists, agendas and meeting minutes for two DECZ Advisory Committee meetings.
2. A biannual presentation on coastal zone activities, plans, and projects for the state CZAC.
3. Memorandum detailing the results of the coastal zone grant ranking process.
4. Technical memoranda, as required.

Beneficiaries:

NOAA, PADEP, ACOE, NMFS, FWS, EPA, U.S. Coast Guard, DRBC, member governments, non-profit organizations, watershed groups, the private sector, and the public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$50,000				\$50,000
2021	\$50,000				\$50,000
2022	\$50,000				
2023	\$50,000				

*PA DEP

PROJECT: 21-33-080 Healthy Communities Planning

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Amy Verbofsky

Project Manager: Karin Morris, Patricia Elkis

Goals:

To understand how the built environment, including the transportation system, affects physical, mental, and social health; explore the intersection of various planning fields with healthy communities planning, including active transportation, air quality, safety, active design, aging in place, and complete streets; promote healthy community planning; explore food system challenges within the DVRPC region and promote food system assets; and support and collaborate with healthy communities stakeholders, county and municipal constituents, and other partners.

This project supports PennDOT's Planning Priority of (I) Land Use/Transportation Linkages/Economic Development/Modernization, specifically (B) to provide input on any training and planning activities targeted to county and local governments, conservation districts and community stakeholders; and (D) support the improvement of intermodal freight connections; and identify livability and sustainability strategies to tie the quality and location of transportation facilities to broader opportunities such as access to good jobs, affordable housing, quality schools, safe streets, economic development, social equity, and environmental conservation.

The project also supports NJDOT MPO Transportation Priorities of improving freight mobility, leveraging additional funding sources, and promoting partnerships. Although NJDOT's Planning Priority within the State Plan's Strategic Goals have not yet been adopted, the project supports targeted economic growth; effective planning for vibrant regions; preservation and enhancement of critical state resources, and tactical alignment of government; and transportation choice and efficient mobility of goods.

This project also supports FHWA's Ladder of Opportunity emphasis area.

Description:

The Centers for Disease Control and Prevention defines Healthy Places as "those designed and built to improve the quality of life for all people who live, work, worship, learn, and play within their borders — where every person is free to make choices amid a variety of healthy, available, accessible, and affordable options." Healthy communities planning encompasses a broad range of built environment issues that have the ability to impact an individual's well-being, including land use, active transportation, air quality, safety, complete streets, food systems, and open space. Healthy communities planning strives to integrate design, programmatic, and policy strategies to improve public health outcomes and increase livability within our region. NJDOT's Complete Streets Policy is an example policy that can be

implemented to improve public health outcomes. Additionally, healthy community planning supports important environmental justice/ladders of opportunity work. DVRPC has undertaken healthy community planning to support greater community wellbeing, improve health outcomes, and increase livability across our region.

This year DVRPC will a) continue to convene the Healthy Communities Task Force (and may continue racial equity training workshops); b) continue to work with Pemberton Township staff, community stakeholders, healthcare partners, and residents to develop a healthy community plan for Browns Mills; c) provide coordination and technical assistance to stakeholders and municipal/county constituents; and d) represent DVRPC on local healthy communities-related working groups.

Background on Browns Mills Healthy Communities Planning Effort:

Browns Mills, home to over 10,000 residents, is located within Pemberton Township, Burlington County. Situated within the Pinelands National Reserve, it has an abundance of natural amenities that offer many scenic and recreational opportunities. Browns Mills is also located adjacent to Joint Base McGuire-Dix-Lakehurst, which employs almost 30,000 military and civilian personnel. Additionally, Browns Mills is home to Deborah Heart and Lung Center, a large healthcare institution and employer. Despite these resources, Browns Mills still faces some challenges. With higher levels poverty and unemployment and lower levels of educational attainment than both the County and the state, the 2016 Deborah Community Health Needs Assessment noted a need to address social determinants of health in Browns Mills. Additionally, data from a number of South Jersey hospitals showed that more than half of Burlington County hospital visits related to chronic diseases (obesity, asthma, diabetes, heart disease, etc.) were driven by residents who live in only 8 zip codes—one of which was Browns Mills.

In FY20, DVRPC began the first phase of its healthy community planning efforts with Browns Mills, including hosting initial meetings with Township staff and key community stakeholders and conducting an existing conditions analysis. In Year Two of the project, DVRPC will undertake a community engagement process to identify specific issues to be addressed in the plan, which could address a number of health and built environment factors such as walkability, parks and open space, healthy food access, and aging in place. The plan will prioritize strategies that the Township and partners can take to support greater well-being for Browns Mills residents and, where possible, identify funding sources and next steps.

Completion of this project may require the purchase of equipment or services.

Tasks:

1. Provide technical assistance to member governments and stakeholders on an ongoing basis.
2. Continue to convene the Healthy Communities Task Force on a regular basis, including assessing interest and budget to support additional racial equity training workshops.

3. Represent DVRPC and provide support and content to other projects, such as the Get Healthy Camden Collaborative, the Healthy Communities in PA Task Force, the Collaborative Opportunities to Advance Community Health (COACH) Group, and Camden Coalition of Healthcare Providers' Accountable Health Communities Advisory Committee.
4. Update DVRPC's healthy communities, age-friendly communities, and food system planning webpages with new content on a regular basis.
5. Participate in and coordinate with government agencies, institutions, foundations, and non-profit organizations to support healthy communities, including national, regional, and local partners focusing on active transportation, air quality, safety, complete streets, and access to healthy food.

Tasks for the Browns Mills Healthy Community Plan:

1. Continue to convene the study advisory committee to guide the work, made up of representatives from Pemberton Township, community organizations, health care providers, social service providers, open space and active transportation organizations, and others as identified. Committee will meet 3-4 times over the course of the project.
2. Develop an outreach strategy to engage community residents in the development of the Healthy Community Plan. An outreach strategy could include:
 - a. Key stakeholder interviews;
 - b. Tabling/activities at public-facing events and festivals;
 - c. Public workshops to discuss existing findings, solicit ideas, and/or finalize recommendations;
 - d. Surveys;
 - e. Youth engagement; and
 - f. Providing residents with a stipend to conduct outreach.
3. Using the results of the community engagement process and existing conditions analysis, develop vision, strategies, and actions for a healthy Browns Mills.
4. Work with stakeholders to prioritize strategies and actions.
5. Develop and publish Browns Mills Healthy Community Plan.

Products:

1. Supporting materials related to technical assistance, as appropriate.
2. Two to four Healthy Communities Task Force meetings, including supporting materials.
3. Meetings with constituents and stakeholders.
4. Healthy communities and food system planning webpages.
5. Browns Mills Healthy Communities Plan - materials related to community engagement, existing conditions, and draft of plan.

Beneficiaries:

State DOTs, FHWA, member governments and citizens, health care and public health community, Browns Mills, Pemberton Township, Burlington County, and local residents and businesses.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$100,000	\$78,515	\$21,485		
2021	\$95,000	\$74,219	\$20,781		
2022	\$95,000				
2023	\$95,000				

PROJECT: 21-33-090 PA/NJ Local Planning Initiatives

Responsible Agency: Delaware Valley Regional Planning Commission

Project Manager: Christopher Linn, Patricia Elkis

Goals:

Partner with New Jersey and Pennsylvania non-profits and local governments on environmental, smart growth, and livability planning initiatives. Additionally, assist local governments by providing planning services on a contractual basis, particularly where matching grant or local funding support exists.

Description:

This continuing program promotes implementation of the DVRPC Long-Range Plan in both Pennsylvania and New Jersey, specifically by contracting for planning services that will enhance sustainability initiatives such as natural resource protection, smart growth, climate change mitigation and adaptation, livability initiatives, and public health.

Projects include assistance in obtaining funding through grant proposals for part of the costs of the projects. Project subsidies are also offered to municipalities within the nine DVRPC counties. Specific projects may include:

- Environmental Resource Inventories
- Municipal Public Access Plan
- Master Plan Sustainability Elements
- Open Space and Recreation Plans
- Farmland Preservation Plans
- Master Plan Conservation Elements
- Conservation Design Zoning/Subdivision Ordinances
- Climate Change Mitigation and Adaptation Plans
- Alternative Energy Ordinances
- Energy Efficiency Assessments for Municipal Operations
- Greenhouse Gas Inventories
- Transit Oriented Development Studies
- Form Based Codes
- Local Food Access and Nutrition Strategies
- Green Infrastructure Plans
- Trail Development Plans
- Street Tree Inventories

This project also provides for DVRPC to partner with non-profit environmental organizations on environmental protection and conservation projects.

Tasks:

1. Meet with municipal leaders, especially environmental commissions/environmental advisory councils, sustainability teams, public works

- departments, and planning boards to present project opportunities.
2. Assist municipalities in obtaining funding for part of the project by preparing draft grant proposals. Funding may come from foundations and a variety of programs run by state and federal agencies.
 3. Meet with appropriate committees and municipal staff to gather information for the project and to obtain review and approval of the final product.
 4. Develop GIS mapping for the municipality that is relevant to the project. Provide larger maps as needed for future use by municipality.
 5. Work with other consultants to the municipality, as needed, to obtain and/or share information.
 6. Write and produce a printed summary document, plan, implementation brochure, etc., and CD for distribution by the municipality, including publication on its local website.
 7. Participate in municipal public hearings pertaining to the projects, as needed.
 8. Provide technical support to the municipality on obtaining and processing data to support planning analysis.
 9. Include the municipality in any DVRPC-sponsored education programs on natural resource protection, open space/farmland preservation, climate change mitigation and adaptation, and livability initiatives.
 10. Work with non-profit organizations on other efforts as needs are identified and opportunities arise.

Products:

1. Meeting materials, citizen questionnaires, and background information on resource topics.
2. Project documents – project summary, inventory, plan, ordinance, or other document, with appropriate maps.
3. Digital version of the document and GIS files for future use by the municipality or non-profit.

Beneficiaries:

Local governments, environmental/conservation non-profit organizations and trail and active transportation organizations.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$200,000			\$30,000	\$170,000
2021	\$150,000			\$26,255	\$123,745
2022	\$200,000				
2023	\$200,000				

*PA/NJ Local Governments

PROJECT: 21-33-100 Hunting Park Station Area Study

Responsible Agency: Delaware Valley Regional Planning Commission

Project Manager: Andrew Svekla

Goals:

Develop and evaluate multimodal access and circulation concepts for the Hunting Park Station and the larger station area, including Direct Bus Phase B.

Identify transit supportive land use and zoning strategies designed to support the community's vision for the station area.

Identify station improvements designed to enhance station access and passenger comfort and convenience.

Identify potential changes to the local street network designed to simplify operations and improve safety for all roadway users.

Description:

The Hunting Park Station on the Broad Street Line is a critical asset to the North Philadelphia neighborhood of Hunting Park. This high ridership station (2,758 daily weekday riders) serves a dense, low-income, transit-dependent community, yet the station itself suffers from low visibility and limited accessibility. The larger station area is home to Hunting Park, the largest non-watershed park in the Fairmount Park system. A multimillion dollar Master Plan for the revitalization of Hunting Park was led by the Fairmount Park Conservancy in 2009. The Conservancy recently completed Phase 1 of implementation plan, including \$4.5 million in capital projects and program. In addition to the park, the station area contains a variety of community-serving destinations, yet pedestrian safety and comfort in this area are jeopardized by auto-oriented development patterns and challenging intersections. Furthermore, the Hunting Park Station is the only fixed rail transit stop on Roosevelt Boulevard. Its strategic location creates a compelling opportunity to link future Direct Bus Service on Roosevelt Boulevard to the Broad Street Line.

This study will incorporate and expand upon planning themes established in DVRPC's Safe Routes to Transit Program. DVRPC staff will work with relevant stakeholders to identify and evaluate opportunities to improve pedestrian and cyclist access to the station as well as along local streets throughout the station area. Active transportation planning will focus on creating safe and convenient connections to and between Hunting Park, Marcus Foster Memorial Stadium, and local schools and community facilities. This study will also provide stakeholders with the opportunity to explore ADA accessibility and other upgrades to the Hunting Park Station. Where appropriate, the study team will examine potential changes to the station area's network of streets intended to improve the operating efficiency and safety of local facilities.

In addition to the transportation elements identified above, this study will seek to develop transit-supportive land use and zoning recommendations designed to capitalize on the area's transit access.

This study will build on the recent revitalization efforts in Hunting Park as well as ongoing planning initiatives related to the expansion of SEPTA Direct Bus service along Roosevelt Boulevard and the Roosevelt Boulevard "Route for Change" Program.

Tasks:

1. Form a project steering committee consisting of representatives from SEPTA, the Philadelphia City Planning Commission, the Office of Transportation, Infrastructure, and Sustainability (oTIS), City of Philadelphia Streets Department, PennDOT District 6-0, and relevant community stakeholder organizations.
2. Gather and analyze data and observations as necessary to evaluate the existing transportation and land use context.
3. Facilitate a stakeholder workshop designed to illustrate the existing conditions of the station area and solicit feedback on potential transportation and land use concepts.
4. Develop multimodal concepts and recommendations designed to enhance pedestrian and bicycle access to the Hunting Park Station and throughout the station area.
5. Outline transit-supportive land use and design strategies that can complement the existing and future transportation context of and community vision for the station area.
6. Work with project stakeholders to develop approximate cost estimates and implementation strategies for the recommendations that emerge from the planning process.

Products:

Report summarizing station area planning process, recommendations, and implementation strategies.

Beneficiaries:

SEPTA, City of Philadelphia, PennDOT, community stakeholder organizations

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2021	\$125,000			\$25,000	\$100,000
2022					
2023					

*PA Supplemental Land Use

PROJECT: 21-33-120 Campbells Soup - Camden City Food Economy

Responsible Agency: Delaware Valley Regional Planning Commission

Project Manager: Amy Verbofsky

Goals:

To continue to work with partners to support a healthy Camden, specifically focusing on addressing transportation barriers that City of Camden residents face in accessing healthy amenities such as healthcare providers, healthy food retail, fitness facilities, and clean open space.

Description:

This project is part of a multi-year relationship with Campbell Soup Company, specifically the Healthy Communities Initiative. It builds off of recommendations in Cultivating Camden: The City's Food Economy Strategy, which analyzed transit access to existing grocery stores in and around Camden. Additionally, this project responds to the experience of other Healthy Communities partners, who work directly with Camden residents and frequently note that transportation to healthy destinations like grocery stores, doctor's appointments, and community events is a significant challenge for Camden communities.

This project also expands upon our outreach efforts from our previous work with Campbell Soup Company, which sought to engage Camden residents and stakeholders in conversations about what they need to be healthy and where they go to be healthy. The intent of these conversations was to understand where people experience gaps in the existing transportation system and begin to work towards solutions that improve access to healthy places. As part of this work, DVRPC also convened transportation providers and key stakeholders to increase awareness of transportation barriers that Camden residents face and provide an opportunity for nontraditional partners and stakeholders to share their experiences/challenges and brainstorm potential solutions. In FY20, DVRPC partnered with the Camden Youth Advisory Council to engage Camden youth around healthy communities and the built environment by conducting walk audits and managing a youth-led mini-grant program..

In FY21, DVRPC will continue to work with our Healthy Communities partners and Camden residents to address issues around access to health-promoting destinations. Specifically, DVRPC will partner with Hopeworks to engage Camden residents and community groups around DVRPC's regional sidewalk inventory. Working with DVRPC, Hopeworks staff and youth will conduct at least 3 walk audits of Camden corridors to verify sidewalk data, identify needs, and prioritize improvements.

Completion of this project will require the purchase of equipment or services.

Tasks:

1. Continue to manage the mini-grant process started in FY20. This will include corresponding with grantees to receive progress and final reports.
2. In partnership with Hopeworks, work with local residents and community groups to support the development of DVRPC's Regional Sidewalk Inventory in Camden.
3. Support Campbell's Healthy Communities Initiative grantees and partners.
4. Attend monthly Campbell's Healthy Communities Investee meetings.

Products:

1. Quantitative data related to the sidewalk network in Camden.
2. Quantitative data related to sidewalk condition in Camden.
3. Meeting agendas, materials, and minutes.
4. Presentations.

Beneficiaries:

Camden City and Camden County

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$50,000				\$50,000
2021	\$50,000				\$50,000
2022	\$50,000				
2023	\$50,000				

*Campbells Soup Company

PROJECT: 21-33-150 Climate Adaptation Planning and Community Resiliency

Responsible Agency: Delaware Valley Regional Planning Commission

Project Manager: Amy Verbofsky

Goals:

Work with the PA Coastal Resources Management (CRM) Program to continue to build municipal capacity to assess climate vulnerability and plan for climate adaptation and resiliency throughout the Delaware Estuary Coastal Zone.

Description:

DVRPC will continue to work with municipalities in the Delaware Estuary Coastal Zone (DECZ) to build capacity in assessing climate vulnerability and planning for climate adaptation and resiliency. To date, DVRPC has engaged municipal stakeholders in the DECZ to better understand their specific concerns and provide technical assistance. DVRPC developed a web-based story map that details projected sea level rise impacts to DECZ communities and potential benefits of joining FEMA's CRS program. DVRPC is working to promote the story map as a tool for communities and provide technical assistance to help municipalities incorporate information from the map into municipal plans and ordinances. In FY21, DVRPC will partner with the Wharton Risk Center to continue to engage municipalities on a number of topics that may include: the role of insurance in risk management; potential improvements to the buyout process and/or how buyouts can support long-term land use goals and resiliency; and information and assistance with BRIC funding.

This program will help local governments understand why climate change matters to their community and identify strategies to increase resilience. Strategies that support existing planning goals will be prioritized.

Completion of this project will require the purchase of equipment or services.

Tasks:

1. Continue to engage with municipalities and other partners in the DECZ, focusing on flooding issues, climate science, vulnerability, resilience, adaptation, and hazard mitigation.
2. Provide training materials (presentations or written briefs) or facilitated convenings around how insurance and risk transfer can help with risk reduction.
3. Investigate municipalities' experiences with floodplain buyout programs and how they can better support long-term land use planning and resilience goals. This work may also include additional research on approaches to speeding the delivery of buyout funds to communities.
4. Provide information, guidance, and technical assistance to municipalities interested in applying to FEMA for BRIC funding.
5. Continue to work with partners like FEMA, the County Planning departments, and

others to promote the story map and support municipal planning and adaptation efforts.

6. Submit documentation and data to PA CRM.

Products:

- 1. Documentation and summaries of outreach activities, including meetings and workshops with municipalities, counties, and other partners.
- 2. Research into the implementation of risk transfer tools and buyout programs in the region and strategies for how to improve their delivery and effectiveness.
- 3. Outreach materials to promote the story map.
- 4. Project summary report for PADEP.

Beneficiaries:

Counties, municipalities, PADEP, NOAA, FEMA, PEMA, PennDOT, non-profit organizations, and the general public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$50,000				\$50,000
2021	\$50,000				\$50,000
2022	\$50,000				
2023	\$50,000				

*PA DEP

Responsible Agency: Delaware Valley Regional Planning Commission**Program Coordinator:** Karin Morris**Project Manager:** Elizabeth Compitello**Goals:**

This project will develop and deliver programs that enable counties and municipalities in southeastern PA to develop and implement energy-efficiency and renewable energy projects for their facilities and operations. Programs and their associated projects will result in quantifiable reductions in operational cost of energy use and reductions in greenhouse gas emissions. The programs will pursue multi-municipal/county approaches to allow local governments to achieve economies of scale in purchasing, decision-making, technical assistance, and finance. These programs will also demonstrate lower upfront cost and improved decision making relative to individually sought development and implementation by counties and municipalities. This work builds off of DVRPC's Regional Streetlight Procurement Program models.

Description:

Aggregation programs for local governments operations allow counties and municipalities to implement energy projects more cost-effectively and efficiently, and can alleviate significant implementation barriers such as lack of technical or financial support. DVRPC will identify energy implementation needs at the county and municipal operational level that are appropriate for aggregation. Examples include municipal street lighting, renewable energy procurement for county or municipal operations, and implementation of energy efficiency and conservation measures at municipal facilities. DVRPC's programs will provide the necessary legal, technical, contracting, procurement, and financing elements to make the process as "turnkey" as possible for participating local governments.

Implementation funding will not be provided to local governments, but DVRPC will seek to arrange financing and other funding sources to enable local governments to implement projects. DVRPC may use this program area funding to pay for the DVRPC staff time, and if applicable the upfront cost of legal and technical support to the program. DVRPC will institute program user fees to recoup any upfront legal, financial or technical consulting costs (DVRPC is unable to recoup costs associated with staff time). By recouping DVRPC's consultant fee investment in the project, DVRPC will be able to fund further energy implementation programs for local government operations as demand allows.

Tasks:

1. Outreach and engagement to local governments on program concepts and program models
2. Issue necessary RFPs to execute project.

- 3. Manage the provision of turn-key technical, legal, and financial support to facilitate program success.
- 4. Manage overall program decisions, timeline, deliverables, and outreach to participant s
- 5. Engage or recruit necessary stakeholders for program success (e.g. utilities, financial partners)

Products:

- 1. At least three workshop webinars.
- 2. RFPs for products and services.
- 3. Program deliverables such as audit reports

Beneficiaries:

Counties of Bucks, Chester, Delaware and Montgomery, and all municipalities within those counties.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2021	\$120,000				\$120,000
2022					
2023					

*DVRPC’s local initiatives revenue

PROJECT: 21-34-080 Regional Aviation System Planning

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Michael Ruane

Project Manager: Ian Schwarzenberg

Goals:

To encourage regional growth, orderly development, and more efficient mobility by preserving and improving aviation facilities through Regional Aviation Systems Planning.

Description:

Aviation Systems Planning is an important ongoing regional effort designed to support Greater Philadelphia's network of airports and heliports, and regional air travel. Objectives and tasks include the collection of aircraft operations counts at non-towered airports; the provision of technical assistance to various stakeholders; and the identification of continuing and new studies.

The primary component of this project will continue DVRPC's long-standing non-towered aircraft operations counting program. Working with the Federal Aviation Administration (FAA) and its aviation partners from the 12-county area that makes up the Delaware Valley Regional Airport System, DVRPC has been conducting non-towered aircraft operations counts since 1986. The aircraft counting program is largely based on a rotating schedule, with greatest emphasis placed on those airports which are designated National Plan of Integrated Airport Systems (NPIAS) facilities. This counting cycle will conduct counts for Doylestown (DYL), Heritage Field (PTW), Pottstown Municipal (N47), and Quakertown (UKT) airports.

Completion of this project may require the purchase of equipment or services.

Tasks:

1. Provide assistance to states, local governments, operators, and consultants in preparing state system plans and other planning documents and policies.
2. Continue annual operations counting at selected regional general aviation airports.
 - A. Deploy and monitor aircraft counting equipment in consult with airport operators.
 - B. Review interim data and provide regular updates on counting activity to partners and airports throughout the count year.
 - C. Download the collected data to the aircraft counting system software, review the data for possible errors, and then assemble the data into Airport Activity Reports.
 - D. Use the collected operations data to project estimates of seasonal and annual operations.
 - E. Collect relevant weather, based aircraft, facility inventory, and helicopter activity data for each airport.
 - F. Prepare summary figures and tables and a narrative synopsis of annual

operations for each airport.

G. Compile all relevant materials into a final, bound report, and update existing aviation database and web portal with outputs.

H. Circulate final report to interested parties and present findings to the members of the DVRPC Regional Aviation Committee.

Products:

- 1. Policy input and technical assistance to PennDOT, NJDOT, and DeIDOT, and DVRPC member governments regarding airport development, plans, and studies.
- 2. Airport operations counting report for the identified airports.
- 3. Updated operations data to the aviation database and online tool.

Beneficiaries:

Member governments, regional and local airports, and regional residents and businesses.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$100,000				\$100,000
2021	\$115,000				\$115,000
2022	\$115,000				
2023	\$115,000				

*\$103,500 FAA, \$5,500 Local, \$6,000 PA Aviation Revenue

PROJECT: 21-34-090 Central Jersey Transportation Forum

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Jackie Davis

Goals:

Achieve improved and more integrated regional land use and transportation planning that will result in a better quality of community life in Central Jersey.

Description:

The Central Jersey Transportation Forum serves a unique role in the state of New Jersey: that of bringing together a wide range of public, non-profit, and private organizations to facilitate a regional, cooperative approach to solving transportation problems. The Forum has held well-attended meetings for over 15 years. It meets to address concerns of municipalities in Mercer, Middlesex, and Somerset counties focused on the US 1, US 130, and US 206 corridors. The geography is from Trenton to New Brunswick, and Robbinsville to Hillsborough; and includes 24 municipalities in the three counties.

The Forum has a formal voting structure to speak as a strong and effective regional voice for central New Jersey. Membership elects its own chair from among its municipal and county voting members, is guided by a Steering Committee, and supported by an Action Team. The Steering Committee consists of the Chair; the co-Chairs of the Action Team; representatives from Mercer, Middlesex, and Somerset counties; NJDOT and NJ TRANSIT; DVRPC and North Jersey Transportation Planning Authority (NJTPA); Keep Middlesex Moving TMA and Greater Mercer TMA; and a municipal representative. DVRPC provides staff support in coordination with NJTPA staff.

The Forum moves toward its goals through an agreed upon Strategic Plan, last adopted by voting members in the spring of 2018. Membership meets three to four times per year. Before a meeting, the Steering Committee convenes to develop the agenda. A Joint Action Team will meet separately on an as-needed basis when there are additional tasks that Forum members must discuss. The Action Team is made up of the formerly separate Rt. 1 Regional Growth Strategy Action Team and the Transit Action Team.

Tasks:

1. Support the Forum, Steering Committee, and Joint Action Team by arranging meetings, preparing materials, tracking progress on the prescribed actions in the Strategic Plan, and expand and maintain web pages.
2. Continue implementation of the Strategic Plan – Assist the Steering Committee and Joint Action Team in implementing the action plan through identified strategies and by setting appropriate agendas for regular Forum meetings. Continue to build municipal and county ownership of the Forum by facilitating delegation of tasks to

committee members.

3. Support the implementation of a small area planning study as requested by the Steering Committee and voting members.

4. Continue to provide meaningful technical contents that help the Forum advance toward its goal.

5. Increase communication between members, and to the public through monthly email updates with funding, events, and news, as well as an updated website with a unique URL address, separate from DVRPC branding.

6. Coordinate with other projects – Communicate with Forum participants and serve as liaison to related projects as requested and as time allows.

Products:

- 1. Meeting materials and highlights.
- 2. Website and content.
- 3. Monthly email updates.

Beneficiaries:

NJDOT, New Jersey Transit, New Jersey Business Action Center, Transportation Management Associations (Greater Mercer TMA and Keep Middlesex Moving), counties (Mercer, Middlesex, and Somerset) and municipalities (15 voting plus 9 eligible), the residents and employees of Central Jersey.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$125,000				\$125,000
2021	\$125,000				\$125,000
2022	\$125,000				
2023	\$125,000				

* NJ TIP - DB #X30A - \$125,000 STBGP-PHILA

PROJECT: 21-34-100 PA Air Quality Action Supplemental Services

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Sean Greene

Goals:

Improve the region's air quality by encouraging public action to reduce air pollution and protect public health through the Air Quality Action program, an episodic, voluntary program for ground-level ozone and fine particulate matter (PM 2.5).

Description:

This project will fund supplemental services performed by contractors in the implementation of the Air Quality Action program. Types of services may include design and production of education and outreach materials and advertising, printing, and placement of advertising on television, online, radio, and in newspapers.

Advertisements will educate the public about ozone and PM 2.5 pollution and encourage actions to reduce activities that contribute to air pollution, especially on days that are forecast as unhealthy for people susceptible to ozone and PM 2.5 pollution.

Tasks:

1. Contract for the design and production of advertisements and promotional literature such as brochures, posters, flags, and educational materials.
2. Contract for the placement of advertising on radio, television, web, place-based, or newspapers.

Products:

1. Advertisements and educational literature.
2. Event and organization sponsorships.

Beneficiaries:

Member governments and residents of the region.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$125,000				\$125,000
2021	\$125,000				\$125,000
2022	\$125,000				
2023	\$125,000				

* PA TIP - MPMS #17928 - \$100,000 CAQ/\$25,000 PA DEP State Match

PROJECT: 21-34-110 NJ Air Quality Action Supplemental Services

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Sean Greene

Goals:

Improve the region's air quality by encouraging public action to reduce air pollution and protect public health through the Air Quality Action program, an episodic, voluntary program for ground-level ozone and fine particulate matter (PM 2.5).

Description:

This project will fund supplemental services performed by contractors in the implementation of the Air Quality Action program. Types of services may include design and production of education and outreach materials; and advertising, printing, and placement of advertising on television, online, radio, and in newspapers.

Advertisements will educate the public about ozone and PM 2.5 pollution and encourage actions to reduce activities that contribute to air pollution, especially on days that are forecast to be unhealthy for people susceptible to ozone and PM 2.5 pollution.

Tasks:

1. Contract for the design and production of advertisements and promotional literature such as brochures, posters, flags, and educational materials.
2. Contract for the placement of advertising on radio, television, online, or newspapers.

Products:

1. Advertisements and educational literature.
2. Event and organization sponsorships.

Beneficiaries:

Member governments and residents of the region.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$50,000				\$50,000
2021	\$50,000				\$50,000
2022	\$50,000				
2023	\$50,000				

* NJ TIP - DB #D0407 - \$40,000 CMAQ/\$10,000 SILOC Match

PROJECT: 21-34-120 Regional Transportation Funding Options

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Barry Seymour

Project Manager: Brett Fusco, Elizabeth Schoonmaker, Jesse Buerk

Goals:

This effort will develop an action plan for the implementation of a local funding and administrative mechanism to allocate new local revenue within the five counties of Southeastern Pennsylvania to support regional transportation needs and projects.

Description:

The Southeast Partnership for Mobility report, undertaken on behalf of PennDOT, SEPTA, and the Pennsylvania Turnpike Commission, analyzed some of the transportation funding needs and challenges in the Commonwealth, and specifically within the five-county southeastern Pennsylvania region. Currently, transportation funding in the region is a combination of federal, state and local sources. Act 44 of 2007 directed the Pennsylvania Turnpike Commission to provide PennDOT with \$450 million annually from Turnpike revenues, with much of that funding going in turn to SEPTA to support public transit services and projects. Under Act 44 of 2007 and Act 89 of 2013, the \$450 million annual contribution from the Turnpike Commission to PennDOT will shift to the General Fund through a dedicated portion of the Motor Vehicle Sales & Use Tax. Efforts are underway to identify a statewide funding solution to ensure the General Fund is able to meet this \$450 million obligation, starting in 2022.

Meanwhile, additional funding beyond what is currently available statewide is needed to advance key projects of significance across Southeastern Pennsylvania. Addressing this funding gap will require action in Pennsylvania at the statewide legislative level, to develop new statewide revenue generation options that can provide transportation funding to PennDOT and SEPTA through the General Fund or through other means. There could also be an opportunity for the southeast PA region to supplement that state funding by establishing new means to generate funding or financing from within the region to support both local projects and regional priorities. This project will explore options on both the mechanism and the means to raise and allocate funding for transportation projects and improvements within southeastern Pennsylvania. Creating a structure to raise and allocate additional funding for transportation from within the region will benefit the entire Commonwealth, by supplementing the available state and federal funding. Contractual services may be required as part of this effort.

Phase II work shall continue in the FY2020-FY2021 UPWP to further refine the analysis and options regarding the preferred administrative structure for a regional funding body, together with the various funding options needed to raise the target revenue. Before advancing the proposal further, we will test the proposal by

conducting a statistically significant survey in the five-county region to solicit public opinion on current transportation conditions, potential funding options and preferences for transportation infrastructure improvements to be funded via new regional funding revenue. Work will include the development and distribution of survey products, focus groups, and promotion of the effort to gain support and provide public education and information on the needs and possible solutions. Collaboration with the established working group shall continue in order to understand the results of the survey, the recommended funding structure, and to determine next steps.

Tasks:

1. Evaluate membership and voting structure of working committee and expand as necessary.
2. Continue the research and revise as needed the work undertaken in FY20 to define the preferred administrative mechanism to oversee a regional funding structure, together with the potential revenue generating options to consider.
3. Develop and distribute a statistically significant survey to solicit public opinion on current transportation conditions, potential funding options and preferences for transportation infrastructure improvements to be funded with new source of regional funding
4. Conduct focus groups.
5. Develop a plan that:
 - Identifies a preferred administrative mechanism to oversee regional funding generation and management, including membership, voting structure and operational mechanisms.
 - Identifies a preferred menu of revenue generating options, and develops an approach for contributing bodies to choose from a menu of funding options
 - Contains timeline to establish structure and the scope of its operations.
 - Articulates a preferred approach toward project selection and funding allocation within the region.

Products:

1. Survey results.
2. Focus group(s) findings.
3. Plan for preferred alternative for administrative mechanism that could manage and oversee the regional funding structure.

Beneficiaries:

The Commonwealth of Pennsylvania, SEPTA, the Pennsylvania Turnpike Commission, the five counties of Southeastern Pennsylvania, local governments, DVRPC planning partners, the general public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2021	\$220,000				\$220,000
2022					
2023					

*PennDOT Connects

PROJECT: 21-34-130 Regional Aviation Plan - 2045 Phase II

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Michael Ruane

Project Manager: Ian Schwarzenberg

Goals:

To encourage regional growth, orderly development, and more efficient mobility by preserving and improving aviation facilities through Regional Aviation System Planning.

Description:

This study will complete the update of the Regional Airport System Plan (RASP) to 2045 and benefit Greater Philadelphia and regional airports by documenting trends and forecasts as well as identifying issues and needs of the regional aviation system. The last full plan, the RASP 2040 for the 12-county DVRPC aviation planning region was completed in 2014.

This Phase II effort will build on the strong data development conducted under Phase I of the RASP. Utilizing new data sets and improved data analysis this study will further expand on how the general aviation industry in Greater Philadelphia is changing and what issues may face the region in the future. The project will build consensus on appropriate performance measures for the regional aviation system and identify opportunities to further enhance economic development and preserve quality of life throughout the region.

Leveraging input from the Regional Aviation Committee and the state departments of transportation, the product of this effort will form a comprehensive system plan for the future of aviation in Greater Philadelphia with actions and recommendations for improvement individual facilities and the system as a whole.

Completion of this project may require the purchase of equipment or services.

Tasks:

1. Complete analysis of existing trends and issues facing the regional general aviation system.
2. Refine population, economic, and aviation projections developed in Phase I.
3. Conduct comprehensive updates on individual facility existing conditions and refine definitions of current and future airport roles.
4. Build consensus on appropriate system performance measures and develop tools for presenting these measures to system stakeholders.
5. Conduct a system needs assessment and formulate recommendations for facilities and the region.

Products:

- 1. Final report with findings from tasks and recommendations.
- 2. Update regional aviation database.
- 3. Supporting web materials to assist in the communication of the plan and key performance measures.

Beneficiaries:

Airports, State DOTs, FAA, Host Communities, Economic Development Agencies

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2021	\$275,000			\$27,500	\$247,500
2022					
2023					

*\$247,500 FAA

**PROJECT: 21-41-060 Transportation Systems Management and Operations
(TSMO)**

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Christopher King

Project Manager: Paul Carafides

Goals:

Ease traffic congestion and improve the efficiency of existing transportation facilities and services through enhanced coordination and integration of Intelligent Transportation Systems (ITS) with Transportation Systems Management and Operations (TSMO).

Description:

Federal metropolitan planning regulations require MPO's to incorporate transportation operations into their transportation planning processes. DVRPC addresses that requirement through the conduct of two long-standing related initiatives. The Transportation Operations Program Area (21-41-030) and the Transportation Systems Management and Operations Project highlight key activities undertaken by these programs which were re-organized for FY 2021 to make sure that all the associated tasks were eligible for the appropriate federal funding sources assigned to each. This required the movement of some tasks from one program to another. The overall project budget for the Transportation Systems Management and Operations Project went down considerably while the Transportation Operations Program Area budget went up significantly. Overall, between both projects, there was a slight decrease in funding while still providing the on-going level of effort from previous fiscal years.

The Transportation Systems Management and Operations (TSMO) Program incorporates strategies to help proactively manage the transportation system by addressing recurring and nonrecurring congestion. Strategies such as traffic incident management, traveler information services, safety service patrols, work zone management, and freight management improve system efficiency, enhance public safety, help reduce traveler delays and improve information access. Successful integration of these and other TSMO strategies will help to make the region more cohesive, and enhance communications and collaboration among transportation partners.

DVRPC's TSMO program encompasses a wide range of activities including the coordination of multi-agency regional initiatives. Its centerpiece is the Regional Integrated Multi-modal Information Sharing (RIMIS) project, an information exchange network functioning as the communications backbone among transportation operation centers throughout the region. A virtual video wall component allows operations center and field personnel to view traffic video feeds in the region.

RIMIS became operational in 2010 and since it is managed by the same developer as the NJDOT system, it automatically receives incident and operational information from NJDOT's database. To receive PennDOT incident information, a data interface to PennDOT's Road Conditions Reporting System (RCRS) was constructed in FY 2011. A data interface to the City of Philadelphia Streets Department's Road Permit system provides street closure information related to events such as utility work, block parties, special events, and construction. This not only greatly increased the amount of useable data for RIMIS users, but was a critical project for the Philadelphia Traffic Management Center. DVRPC has continued to roll out RIMIS to regional transportation agencies, county 911/emergency management centers, local police and fire departments in major corridors, and counties' engineering/public works departments in New Jersey as requested. Assistance in using RIMIS in local municipalities for Integrated Corridor Management purposes is offered, especially with respect to the I-76 ICM Project in Pennsylvania.

In FY 2021, the primary emphasis will be operating and maintaining RIMIS software, continuing to expand the number of agencies participating in RIMIS, continued exploration of the RIMIS SPATEL tool, and working with the agencies to ensure quality control of RIMIS data. As the number of RIMIS users has grown, it is becoming more essential to coordinate with our RIMIS users, monitor usage, and rapidly address any issues that they may be encountering.

Other focus areas of DVRPC's TSMO program include updating DVRPC's Interactive Detour Route Mapping (IDRuM) application, providing training programs for ITS operators and emergency response personnel, monitoring performance measures, security planning and providing technical assistance to agencies.

IDRuM is being enhanced and updated into a new online web version. IDRuM is designed to give emergency responders access to the detour routes that allow them to be prepared when an incident occurs on a nearby highway. Typically traffic is diverted off the highway onto the arterial network and those arterials often become congested. By planning these routes and identifying key control points, local police can provide traffic control assistance to help ease the flow of traffic in their communities.

There continues to be emphasis placed on integrating the use of performance measures into strategic and operations planning. One of the primary outcomes that operations programs strive for is reduced congestion, and typical performance measures include travel times and travel time reliability, which tell us that conditions are better or worse than in the past. DVRPC will continue to work with our stakeholders to develop a consistent approach where applicable to define the proper measures, collect and analyze the data, and report on our region's performance measures.

Activities listed below fall under two broad categories: RIMIS and Other TSMO Tasks. The former includes Operations and Maintenance (O&M) tasks performed by

the software vendor (TRANSCOM) and DVRPC supervisory/technical activities associated with RIMIS. The latter category includes DVRPC staff activities that support programs for greater integration among the region's TSMO stakeholders, and more general activities. Some of these activities may require DVRPC to purchase equipment and/or services.

Tasks:

RIMIS Software Vendor Tasks

1. Software vendor will perform software operations and maintenance functions.
2. Software vendor will function as the system administrator, adding additional ITS devices to the RIMIS database and modifying the highway and transit network as required.
3. Software vendor will make enhancements to RIMIS software as directed.
4. Software vendor will assist RIMIS agencies in developing data interfaces with legacy software systems as required.
5. Software vendor will periodically meet with DVRPC and the users to review RIMIS's status and discuss and resolve operational issues.

DVRPC RIMIS Tasks:

1. Coordinate software vendor's activities with the RIMIS users and the Transportation Operations Task Force.
2. Supervise the RIMIS software vendor's adherence to its contract.
3. Review and approve all invoices and progress reports with respect to the RIMIS software vendor.
4. Organize training programs for RIMIS users.
5. Work with software vendor to phase-in additional RIMIS users. This may include construction of additional data interfaces.
6. Perform system administration functions, such as modifying agency and user accounts, installing RIMIS software for users, developing video walls for users, and assisting the RIMIS software vendor in performing some of the other minor administration functions.
7. Perform quality control review of RIMIS information and its usage. Work with users to ensure that information entered into RIMIS is accurate and timely, and that agencies use RIMIS information to manage events.
8. Perform additional activities associated with RIMIS as the need arises.

Other TSMO Tasks

1. Continue and expand initiatives to enhance interagency information sharing and cooperation. Activities include providing technical assistance to operating agencies.
2. Continue to operate and maintain Interactive Detour Route Mapping (IDRuM). Work toward developing a new web version of IDRuM program, including using GIS to make necessary updates to the detours to reflect changes to any routes or construction activity.
3. Continue the regional construction coordination efforts to minimize traffic impacts of overlapping construction projects.
4. Continue to maintain the region's ITS Infrastructure Inventory.
5. Participate in appropriate security planning efforts by attending external

meetings, webinars and other events such as the Delaware Valley Intelligent Center (DVIC) security roundtable quarterly meetings

- 6. Continue to promote and provide training programs on TSMO and ITS strategies. These activities may include identifying training opportunities, hosting training courses, bringing in industry experts, sponsoring conferences on special topics, and arranging tours of ITS deployments within and outside of the region.
- 7. Continue coordination and participation with local and regional partners and their committees, such as the I-95 Corridor Coalition, Southeastern Pennsylvania Regional Task Force and the Philadelphia Local Emergency Planning Committee.
- 8. Continue to work with our stakeholders to develop a consistent approach where applicable to define the proper measures, collect and analyze the data, and report on our region’s performance measures.

Products:

- 1. Operation and maintenance of RIMIS software.
- 2. Management of RIMIS software vendor.
- 3. Operation and maintenance of IDRUM.
- 4. Implementations of programs to foster interagency cooperation.
- 5. Technical assistance to agencies.

Beneficiaries:

ITS operators, emergency responders, motorists, and transit users. Member governments and agencies, including PennDOT, NJDOT, transit operators, County Planning Agencies; and citizens served by a more efficient and reliable transportation network.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$933,500				\$933,500
2021	\$554,000				\$554,000
2022	\$554,000				
2023	\$554,000				

* PA TIP - MPMS #72738 - \$310,400 STU/\$77,600 State 581 NJ TIP - DB #01300 - \$166,000 STBGP-PHILA

PROJECT: 21-41-070 I-95 Planning Assistance

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Elizabeth Schoonmaker

Project Manager: Jesse Buerk

Goals:

The purpose of this program is to support the implementation of I-95 Reconstruction Projects by serving as a planning and coordination resource for PennDOT.

Description:

This project provides for technical and planning assistance to PennDOT District 6 for support in implementation of the I-95 Reconstruction Projects. DVRPC will be “on call” for quick-turnaround analysis or data collection tasks in support of specific and timely I-95 project planning needs. Tasks will include data collection, meeting and stakeholder coordination, and general research as needed. Subject areas include congestion mitigation strategies, as well as transit, Transportation Management Association, environmental, freight, historic, and bicycle/pedestrian issues. District 6 has limited planning staff, while DVRPC planning staff has multiple areas of expertise which are beneficial for this work and have been utilized in the past.

Tasks:

1. Facilitate discussion and prioritization with SEPTA on capital improvements to mitigate congestion on I-95 during and beyond the reconstruction project timeline; provide sketch-level benefit/cost analysis of proposed improvements as needed. Assist with design coordination and implementation of congestion mitigation strategies.
2. Coordinate implementation of recommended strategies developed from the DVRPC Alternatives Development for Roosevelt Boulevard Transit Enhancements study.
3. Coordinate implementation of recommended strategies developed from the DVRPC Improving Non-motorized Access to Regional Rail Stations on the I-95 Corridor study.
4. Coordinate implementation of recommended strategies developed from the Bucks County Planning Commission on bicycle and pedestrian access to stations in Lower Bucks County on SEPTA’s West Trenton Line.
5. Facilitate coordination between SEPTA, PennDOT, and other agencies, including multiple agencies/departments within the City of Philadelphia.
6. Coordinate communications and outreach activities with the TMAs.
7. Assist with bicycle and pedestrian planning and coordination efforts in the I-95 corridor.
8. Assist with trail alignment and coordination efforts for trails along the I-95 corridor, especially for portions related to the East Coast Greenway.
9. Assist with environmental mitigation efforts and context sensitive planning related to the I-95 reconstruction projects.

10. Assist with coordination of historical preservation efforts related to the I-95 reconstruction projects.
11. Coordinate with freight industry representatives on construction activities, detour routes, long range planning, and general coordination.
12. Provide mapping and Geographic Information Systems (GIS) support as requested.
13. Provide support in coordinating and developing legal agreements, as needed.
14. Assist with identifying and cataloging transportation infrastructure projects within the corridor.

Products:

1. Meeting agendas, summaries, and process memos
2. Prioritized recommendations
3. Benefit-cost and short-term analyses
4. Other documents as requested; may include brochures, marketing materials, graphics, tables, charts, and fact sheets
5. Maps and interactive map services

Beneficiaries:

PennDOT, Member Governments, SEPTA, Residents, Businesses, Workers

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$100,000				\$100,000
2021	\$100,000				\$100,000
2022	\$100,000				
2023	\$100,000				

*PA TIP# 106708 \$80,000, NHPP \$20,000 State 581

PROJECT: 21-51-020 Enhance and Maintain Travel Forecasting Tools

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Matthew Gates

Project Manager: Fang Yuan

Goals:

Support the economic vitality of the region, improve accessibility and mobility for people and freight, protect the environment, enhance connectivity between modes, and promote the efficient management and operation of the existing transportation system by updating DVRPC's travel simulation models to state-of-the-art standards and updating the data used in the model.

Description:

DVRPC continually strives to keep its travel simulation models up to date to ensure the accuracy of travel forecasts and to respond to new forecasting requirements associated with the FTA New Starts program, FHWA conformity demonstration and NEPA requirements, and EPA clean air amendments and other environmental regulations. Major activities in the Travel Modeling work program area include updating the highway and transit networks to reflect current conditions; enhancing the demand modeling methods to better present real-world travel behaviors; calibrating and re-validating the models with current data; integrating emerging computer and software technology and new data sources to enhance the efficiency and credibility of the models; and supporting model applications to evaluate the impacts and benefits of various transportation investment and planning scenarios.

A significant model enhancement effort was the development of an activity-based (AB) model. AB models treat travel demand as derived from the individuals' need to participate in various spatially dispersed activities. AB models are more behaviorally based and suitable for modeling a wide variety of transportation policy and planning options than the conventional trip-based models. In FY 2017, DVRPC completed the estimation and implementation of its new AB model—TIM 3.0, using data from the 2012-14 household travel survey. In FY 2020, the TIM 3.0 model was updated with 2015 network and zonal data, a new population synthesizer, re-estimated coefficients, and an improved data management procedure, and moved to the VISUM 18 platform, as the TIM3.1 model. The TIM 3.1 model was validated at the system level, including simulated screenline highway volumes, vehicle miles traveled (VMT) by county, highway volume by link type and time of day, and transit ridership by sub-mode and operator.

In FY 2021, the TIM 3.1 model will be further calibrated and validated at a more comprehensive level, including these long-time choice model components, park-and-ride model, other behavioral aspects of the AB model, based on travel survey and other public or private data sources. More sensitivity tests will also be performed to ensure that the TIM 3.1 model responds to changes in socio-economics,

transportation system operation and cost, intuitively and consistent with historical data and findings in literature. Furthermore, improving the efficiency and productivity with the TIM 3.1 model, which requires a longer run time and a much larger data preparation effort than the trip based model, will continue in FY 2021. Tools for preparing Census data for population synthesizer and base-year microzones, Python scripts for summarizing DaySim outputs, and tools or VISUM extension for visualizing the AB model results, in terms of daily activity and tour patterns and assignment analysis, will also be developed and tested. In FY 2021, model integration will be made between TIM 3.1 (personal travel model), other auxiliary travel models (truck model and airport special generator model), and software tools and processes used by DVRPC, including EPA's MOVES air quality model, FTA's user benefits model (STOPS), VISSIM microsimulation, DVRPC's ongoing land use model development, and other tools as required. Certain postprocessors of the travel simulation results will be updated and enhanced to better utilized the disaggregated and finer resolution outputs form the ABM.

In addition to the AB model, the trip-based TIM 2.x model will be continuously updated and improved, as it is still the production model at DVRPC and offers a faster run time. In FY 2020 and 2021, the TIM 2.x model will include more fundamental changes on the model's trip distribution, balance, value of time assumptions, non-motorized model, trip-based truck model and park-and-ride model. Additional model calibration will be conducted after these major changes and available newer travel statistics. The model validation will also use commercial data, such as INRIX trip data recently purchased at DVRPC. The highway and transit network update will start in FY 2021, by preparing and importing new Open Street Map (OSM) and General Format Transit Data (GTFS), towards the development of the 2020 base year for both trip-based TIM 2.x and AB TIM 3.x models.

In FY 2019, DVRPC started the development of a tour-based truck model. The tour-based truck model is similar to the AB model, representing the freight and commercial truck movements through a daily scheduling approach including truck stops along the delivery and service tours. In FY 2020, the tour-based truck model was estimated, using INRIX trip data, calibrated, and validated with truck counts and estimated truck VMT. In FY 2021, the tour-based truck model will be fully integrated with both trip-based TIM 2.4 and activity-based TIM 3.1 models. Sensitivity test of the tour-based truck model will also be conducted in FY 2021. Visualization tools for truck tours and trips will be developed in a similar way as for visualizing household activity and travel tours for the ABM. That allows the visualization of not only simulated model results but also acquired INRIX data.

The models developed under this program will ensure that DVRPC continues to meet and exceed the state and federal requirements and also has the necessary tools to evaluate the projects, policies, and programs that are of interest to the Commission's member governments. This project may require DVRPC to purchase goods and/or services.

Tasks:

1. Further validate and test the TIM 3.1 model.
2. Enhance data management tools for TIM 3.1.
3. Develop visualization tool for TIM 3.1.
4. Update population forecasts, including synthetic population at microzone level, and employment forecasts, for 2025, 2030, 2035, 2040, 2045 and 2050.
5. Update all TIP and Long Range Plan projects in the VISUM Scenario Manager.
6. Update the TIM 2.4 model
7. Prepare 2020 highway and transit networks
8. Update model documentation and validation report for TIM 3.1 and TIM 2.4.
9. Conduct sensitivity test with tour-based truck model.
10. Integrate tour-based truck model with TIM 3.1 and TIM 2.4.
11. Develop visualization tool for the tour-based truck model and data.
12. Develop tie-in between TIM 3.1, land-use model, and MOVES2014 or successor models.

Products:

1. Validated and improved TIM 3.x model, including model documentation and validation report.
2. Validated and improved TIM 2.x model, including model documentation and validation report.
3. Validated tour-based truck model, and integrated with TIM 2.x and 3.x.
4. Visualization tools for TIM 3.x, tour-based model and data.
5. Tie-ins with MOVES, User Benefits, and Land Use model
6. VISUM Scenario Manger for 2050 Long Range Plan.

Beneficiaries:

State DOTs, transit operators, member governments.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$640,000				\$640,000
2021	\$640,000				\$640,000
2022	\$640,000				
2023	\$640,000				

* PA TIP - MPMS #86077 - \$454,400 STU/Toll Credit Match NJ TIP - DB #X30A - \$185,600 STBGP-PHILA

PROJECT: 21-51-040 District 6 Modeling Assistance

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Matthew Gates

Project Manager: Keith Hartington

Goals:

Support the implementation of PennDOT District 6 Reconstruction Projects by serving as a planning and coordination resource for PennDOT and providing traffic modeling and forecasting services throughout the I-95 corridor, and along other facilities as needed.

Description:

This project provides for technical and planning assistance to PennDOT District 6 for support in implementation of the I-95 Reconstruction Projects, and other traffic studies as identified by PennDOT. DVRPC will be “on call” for quick-turnaround analysis or data collection tasks in support of specific and timely I-95 project planning needs. Tasks will include data collection, meeting and stakeholder coordination, traffic modeling and forecasting, and general research as needed.

This project will require an expansion of DVRPC staff to include two dedicated travel modelers to prepare traffic forecasts throughout the I-95 corridor in Pennsylvania. The additional staff members will report to the Manager, Office of Travel Trends and Forecasts, and work with other staff as needed to prepare traffic forecasts and other modeling services.

New traffic data and forecasts are needed for several tasks. These include analyzing additional interchange configurations to improve safety, reduce congestion, and address community concerns; support new or updated Point-of-Access (POA) studies; extend the horizon year of previous traffic forecasts in the corridor; analyze and plan for future freight activity; and prepare detour route forecasts for later construction phases.

Tasks:

1. Coordinate with PennDOT and their consultants; attend meetings and make presentations as needed.
2. Focus and calibrate regional travel demand model on the I-95 corridor, and other facilities as needed.
3. Conduct computerized traffic assignments to determine horizon year traffic volumes under No-Build and Build scenarios.
4. Prepare daily (AWDT) traffic volumes for I-95 mainline, ramps, and selected facilities impacted by the I-95 scenarios throughout Sectors A, B, C, and D.
5. Prepare AM and PM peak hour traffic forecasts, including intersection turning movements for the No-Build and Build scenarios, as needed.
6. Collect, tabulate, and/or process origin-destination and travel time data, as

needed.

- 7. Prepare forecasts to evaluate the impact of new or improved transit connections on highway patterns, volumes, and interchange operations, as needed.
- 8. Prepare forecasts to evaluate the impacts of new land uses and/or redevelopment on travel patterns, volumes, and interchange operations, as needed.
- 9. Prepare maps and tables for transmittal of the data and travel forecasts to PennDOT and their consultants.
- 10. Prepare technical memorandums documenting the results of the travel forecasting; incorporate any comments from PennDOT and their consultants.

Products:

- 1. Traffic forecasts with supporting maps, tables, and figures.
- 2. Process memos as needed.

Beneficiaries:

PennDOT

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$460,000				\$460,000
2021	\$460,000				\$460,000
2022	\$460,000				
2023	\$460,000				

*PA TIP MPMS # 110127 - \$368,000 NHPP, \$92,000 State 581

PROJECT: 21-51-050 Route 422 Operations and Capacity Study

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Matthew Gates

Project Manager: Keith Hartington

Goals:

To develop a traffic operations model for the US 422 corridor in Chester and Montgomery counties that can provide performance measures to assess the current and projected operating conditions of the highway and its interchanges.

Description:

The efficient operation of the US 422 corridor is fundamental to the vitality of the greater Philadelphia region. Due to limited capital funding for capacity improvements, alternative strategies to maximize the current and future operating performance of this corridor continue to be identified. The primary focus of this study will be to develop a microsimulation tool and use it to analyze those strategies identified via participation of the project's stakeholders.

US 422 is an important facility to southeastern Pennsylvania. It extends from King of Prussia to Pottstown and beyond, carrying over 60,000 vehicles on a daily basis. It provides connections to many of the region's expressways, including the Pennsylvania Turnpike, US 202, and I-76. Many sections of US 422 currently operate under congested conditions throughout much of the day. This project will develop a traffic operations model for the US 422 mainline, interchange ramps, and the ramp intersections with crossing streets. This model will simulate the travel of individual vehicles along the US 422 corridor during AM and PM peak periods under current (2018) conditions. To construct this operations model, DVRPC will collect data on existing conditions, including traffic volumes, travel speeds, roadway geometry, and signal timing plans. A microscopic traffic operations model using VISSIM software will be developed.

This model will provide measurements such as average vehicle speeds, throughput, congestion, delay, and queue lengths. US 422 will be modeled as a system; the effects of spillback from downstream congestion will be captured in the analysis. In addition, animated graphics will allow visualization of traffic operations under prevailing conditions, including the effects of merging and weaving sections, lane drops and lane adds, and lane changing behavior at off-ramps.

Once this model is in place and fully tested, it can then be used to evaluate the effectiveness of conceptual improvement strategies such as new interchange configurations, additional freeway auxiliary lanes, ramp metering, flex lane applications, limited expressway widenings, improved geometry, or other local improvements that could alleviate traffic congestion throughout the corridor. Specific improvement strategies will be developed in consultation with PennDOT throughout

the study process. The goal is to identify the most appropriate set of discrete roadway and corridor operational improvements for this corridor. This multi-year project is expected to take 36 months to complete.

During year three of this project, efforts will focus on enhancing the Build scenarios. Project work will primarily focus on developing and testing the use of Flex Lane applications. Flex lanes are a congestion management tool used to accommodate traffic by temporarily using either the inner or outer shoulder during peak travel hours. Flex lanes are typically utilized in conjunction with ITS technologies to ensure the system operates safely and efficiently. Another aspect this project to be studied in year three is to use the model to help advance a transit element. Some form of transit, likely with components rooted in a Bus Rapid Transit (BRT) system, will be developed. Though the details of a BRT system are yet to be determined, this project will lay the groundwork for a more detailed transit study for the US 422 corridor.

Tasks:

1. DVRPC will coordinate this project with PennDOT, the Chester and Montgomery County Planning Commissions, and the affected municipalities. A project steering committee will be formed to share data, analysis, and results. In addition to a kick-off meeting, periodic meetings will be held to review data, to compare the base-year VISSIM traffic operations to real-world data, to review daily AM and PM peak period traffic volumes, and review the simulated traffic operations. This task will continue throughout the project.
2. Traffic counts were collected on every on-ramp and off-ramp along US 422 and at selected locations along the mainline in FY2019. Additional traffic volume and travel time data may be collected in FY2020. Daily volumes will also be reported in order to calibrate the travel demand model. A sample of vehicle classification counts will be used to determine the proportions of light and heavy truck traffic using the facility at various locations. These counts will be summarized in hourly intervals during the AM and PM peak periods for input to the VISSIM traffic operations model. If warranted, manual intersection turning movement counts will be collected at signalized intersections at ramp junctions with crossing streets. These counts will be used to model the storage capacity of off-ramps, and determine whether or not their queues extend far enough to affect mainline traffic operations.
3. DVRPC's regional travel demand model will be focused on the US 422 corridor and calibrated to base-year (2018) conditions. The travel demand model will be executed and the output traffic forecasts compared to existing travel patterns and traffic volumes collected in Task 2. Travel demand model parameters will be fine-tuned as necessary until the model reasonably replicates existing travel patterns and traffic volumes throughout the study area.
4. Current signal timing plans at ramp intersections will also be input into the model. Field observations on the location and extent of recurring bottlenecks may be required. Additional data needed for model calibration, such as travel speeds, flow rates, mainline volumes, and queue lengths will be obtained through a variety of sources, including Here.com, Google Traffic, INRIX, PennDOT's traffic cameras, and project team field visits.

5. DVRPC will create a traffic operations model using VISSIM software representative of base-year (2018) conditions during the AM and PM peak periods. The model's parameters will be calibrated to ensure that the model adequately represents existing conditions, including volumes, travel speeds, and the location, extent, and duration of congested conditions.
6. DVRPC will work with project team stakeholders to develop the 2040 No-Build and Build scenarios. This horizon year is consistent with other regional VISSIM models that connect into the US 422 modeled corridor.
7. Develop No-Build and Build scenarios based on the agreed-upon horizon year. The No-Build will serve as the future base line scenario from which other future-year networks can be compared. Under the Build scenarios, various improvements will be developed and tested. These improvement strategies may come from stakeholder suggestions, prior studies, DVRPC recommendations, or identified within the VISSIM model.
8. Refine the Build scenarios to specifically test the use of Flex Lanes and related ITS components. Examine currently programmed construction projects, specifically the widening of US 422, to see how the widening may be amended with the use of Flex Lanes.
9. Utilize this model to initiate work to develop a transit component for the corridor.
10. Collect, quantify, and compare performance measures for the Base Year, No-Build, and Build conditions.
11. Maps, figures, and tables displaying various input data and resulting performance measures for the AM and PM peak period will be prepared. Additional summaries of the travel simulation model outputs, such as users cost/benefit, emissions analysis, and fuel consumption may also be provided.
12. Upon completion of travel forecasts and operations model development, DVRPC will prepare a report that documents the operational model. The report may include traffic count data, a description of the travel forecasting process, and the preparation, calibration, and results of the operations model.
13. DVRPC staff will provide technical assistance in interpreting and presenting the results of the study as needed. The traffic operations model and its input data for base year conditions will be made available to PennDOT for its use. Additional Build scenarios may be evaluated using the operations model under subsequent projects.

Products:

1. Technical report that documents the preparation and calibration of the operations model, presents current traffic count data, a description of the travel forecasting process, and the results of the model.
2. VISSIM traffic models for the Base Year, No-Build, and Build scenarios of the US 422 Corridor.

Beneficiaries:

PennDOT, Chester County Planning Commission, Montgomery County Planning Commission

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$150,000				\$150,000
2021	\$175,000				\$175,000
2022	\$175,000				
2023	\$175,000				

*PA TIP #110837 \$175,000, STU/Toll Credit

PROJECT: 21-51-060 Freight Model Enhancement

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Fang Yuan

Goals:

To implement a behavioral, tour-based urban freight model providing enhanced forecasting accuracy and sensitivity to support various planning needs, projects and programs in the region.

Description:

Freight movement is significant in the Delaware Valley, with 9.8 million miles of daily truck activity pertaining to 1,000 miles of the National Highway System in the region. Efficient freight and commercial truck travel is essential to national, state, and local transportation infrastructure planning and our economic well-being. During the reconstruction of the I-95 corridor in the region, how to accommodate truck travel is especially critical to planning for traffic detours, hours of construction, and congestion management, so that construction impacts on I-95 and other facilities can be minimized.

To support these planning needs, DVRPC started improving the truck model component of its regional travel demand model, including the development of a new tour-based truck model. The existing truck model was limited to modeling light and heavy truck trips in the context of a traditional 4-step model. A truck survey was conducted in 2000 to determine truck trip generation rates and trip length frequency distributions. Vehicle classification counts were conducted and used to estimate truck VMT, to which the model was calibrated. While the existing model is able to fairly accurately predict the magnitude of truck trips and the total truck VMT in the region, it is unable to predict the behavioral changes of truck travel due to programming or policy measures and the resulted truck volumes on individual highway facilities.

The new truck model will include an internal truck tour generation model that presents truck activities including touring patterns in the region. The number and type of truck tours (as well as the number, type, and time profile of stops associated with each truck tour) will be estimated for different shipping and receiving firms by firm size, industrial type and land use type, using DVRPC's cleaned up version of the National Employment Time Series (NETS) database and commercial truck GPS data. The new truck model will also include an external freight demand model that presents the long-haul truck trips entering, leaving, or travelling through region via highway cordons, airports, and ports, based on the commodity flow data, such as Freight Analysis Framework (FAF).

In FY 19 and 20, the project team disaggregated the FAF4 database first from all FAF regions covering the DVRPC model region to all counties in the model region,

and then from the counties in the DVRPC model region to traffic analysis zones (TAZs) in the model region, using the County Business Patterns (CBP), BEA Make Use Tables, and the NETS data. While the disaggregated FAF data is valuable for freight planning, the disaggregated FAF tonnage the SCTG2 level was tested as explanatory variables for the truck tour model at the TAZ level. The FAF4 data was also used to develop a commodity flow OD table that associates the FAF Regions with DVRPC External Stations, and characterizing that association as serving EE, EI, or IE trips with respect to the DVRPC Model region, by scooping and extracting the assigned FAF flow on a national highway network. These methods and processes were established to bring in the FAF forecast at the national level to the DVRPC region to reflect the impact of the supply chain changes at the national level to the regional network.

In FY 20, the project team also evaluated potential data sources and identified the INRIX trip data for the tour-based model development. One month of INRIX trip data was acquired and processed to develop the model estimation data, by inferring the truck stop locations and tours from the disaggregated GPS and other location-based data. The inferred location data was further linked with the land use data and expanded based on truck counts to determine trip rates and purposes. Tour-based truck models for light, medium, and heavy trucks were estimated using that data and implemented for the DVRPC region. Preliminary model calibration and validation was conducted.

In FY 21, the new model will be further tested, calibrated and validated based on truck counts, river-crossing volumes, and estimated truck VMT. The new model will be integrated with both trip-based TIM2.x and activity-based TIM3.x models in VISUM. The traffic assignment model (which simulates the route choice between stops along the truck tours and forecasts the total truck volume at the link level) will also be improved by separating autos, light and medium trucks, and heavy trucks in traffic assignment. The regional highway network will be modified with different link capacity, free-flow speed, toll, and other operational characteristics for trucks vs. automobiles. A multi-class highway assignment is necessary to capture different route-choice preferences but joint impact on highway performance, at the cost of computer runtime roughly tripped. Therefore, improving computer hardware is required accordingly to improve the model efficiency.

Tasks:

1. Fully calibrate and validate truck tour models.
2. Implement multi-class assignment with new truck model.
3. Conduct model sensitivity test.
4. Integrate with TIM2 and TIM3 models.
5. Develop model documentation.

Products:

1. Fully vested and integrated tour-based truck model
2. Model documentation

Beneficiaries:

Delaware Valley region, DOTs, and other public agencies.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2021	\$150,000				\$150,000
2022					
2023					

*PA TIP - MPMS #92289 - \$45,000 NHPP/ \$5,000 State 581, NJ TIP- DB #
X30A- \$100,000 STBGP-PHILA

PROJECT: 21-52-050 Strategic Planning for Regional TDM Program

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Stacy Bartels

Project Manager: Amy Bernknopf

Goals:

This project allocates local funds to support DVRPC strategic planning and priority setting work for the Regional Transportation Demand Management (TDM) Program (21-52-040), which will fund implementation of pilot TDM projects using Pennsylvania and New Jersey Congestion Mitigation and Air Quality (CMAQ) funds. This program also provides a platform and guidance for incorporating TDM more frequently into DVRPC and partner plans and projects, and encourages cooperation among partners on these efforts—contributing to more efficient use of our region’s multimodal transportation infrastructure for improved regional air quality overall.

Description:

DVRPC will convene a new Regional TDM Advisory Committee with relevant partner agencies to develop and reach consensus on goals, objectives, and an initial Vision Statement for a new regional approach to prioritizing TDM strategies in the DVRPC region. This Committee will also help develop and prioritize strategies and pilot projects for testing, and find ways to measure performance and impact. This work also includes peer/best practice assessment for successful historic and ongoing TDM plans and programs, here and in other regions, and evaluation of current plans and data that can be used to inform new priorities. This may include development and oversight of competitive or RFQ/P process(es), and establishing tracking procedures for measuring the AQ impact of the program's projects and tasks.

A performance-based and outcome-driven approach to developing, evaluating, selecting, and undertaking projects will help staff and stakeholders strengthen existing TDM programs, and develop and pilot new initiatives that can serve as a foundation for the future regional TDM portfolio.

Tasks:

1. Convene a TDM Advisory Committee, comprised of DVRPC member governments, State DOTs, transit agencies, and others, as appropriate.
2. Take a fresh look at the state of the practice for TDM, including reviewing other recently-developed regional TDM programs, to produce a menu of candidate new strategies and pilot projects.
3. Facilitate an initial advisory committee workshop discussion on vision, goals, objectives, and areas of focus, informed by peer practice.
4. Create an initial Vision Statement and purpose & need principals for our approach to TDM in the DVRPC region.
5. Document historic and ongoing TDM activities, in our region and nationally, as

applicable, and evaluate relevant, available plans and data that can be used to inform new regional priorities for action.

6. Convene additional advisory committee meetings or workshops, as needed, to further develop and prioritize strategies and pilot programs for testing in the DVRPC region, as well as ways to measure performance (data needed to support AQ analysis) .

7. Develop a living strategic plan of priority TDM projects that builds on current activities and success, and also cultivates new strategies for trial, evaluation, and growth.

8. From this strategic plan, develop proposed 'early action' projects for DVRPC consideration, to be funded from project 21-52-040, with programs added to PA and NJ TIPs as appropriate.

Products:

- 1. Progress reports; meeting summaries; technical briefs/white papers.
- 2. A new strategic plan for regional TDM activities, including a clear consensus vision for priorities, and a menu of prioritized strategies including identification of early-action pilots to be funded from program 21-52-040.
- 3. Possible RFQ/P development, releases, and evaluation.

Beneficiaries:

DOTs; State, County, and City partners; transit agencies; TMAs; employers; commuters; residents.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2021	\$50,000				\$50,000
2022	\$50,000				\$50,000

DVRPC local fund

PROJECT: 21-52-060 Pottstown Area Regional Plan Development

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Sarah Moran

Project Manager: Kelsey McElduff

Goals:

Assist municipal officials in developing and implementing transportation policies and plans that enhance the region's transportation network and support the implementation of the goals outlined in the Pottstown Metropolitan Regional Comprehensive Plan, adopted in 2015.

Description:

This work program element is dedicated to continuing efforts that cooperatively support the PMRPC's work on identifying, prioritizing, and developing transportation studies and improvement projects in and around the Borough of Pottstown in Chester and Montgomery counties. Each year, a study or project is selected for DVRPC to complete. This year's focus will be a continuation of a FY20 project: identifying multimodal design improvements for High Street in West Pottsgrove, Pottstown, and Lower Pottsgrove. In FY2020, DVRPC worked with stakeholders to identify area subcorridors and held steering committee and public meetings. DVRPC also analyzed existing conditions. In FY2021, the project team will build upon work completed in FY2020 and assess future year traffic conditions, as well as identify transportation and streetscape improvements.

Tasks:

1. Identify corridor objectives.
2. Model future traffic conditions to identify potential issues.
3. Perform technical analysis for identified problems.
4. Develop recommendations pertaining to transportation and land use issues, including comprehensive streetscaping recommendations.
5. Work with MCPC and the Steering Committee to organize a public meeting to receive public input on recommended improvements.
6. Present preliminary findings and recommendations to the Steering Committee.
7. In cooperation with the Steering Committee, develop an action plan for the recommended improvements.

Products:

1. Meeting materials for Steering Committee and public meetings.
2. Summary report.
3. Other data sharing or memorandums as appropriate.

Beneficiaries:

Montgomery County; Pottstown Borough; Lower Pottsgrove Township; West

Pottsgrove Township; PennDOT; SEPTA; Pottstown Area Rapid Transit; and local residents and businesses.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2021	\$60,000	\$46,875	\$13,125		
2022	\$60,000				
2023	\$60,000				

PROJECT: 21-52-070 PennDOT Connects Bike-Friendly Resurfacing Program

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Gregory Krykewycz

Project Manager: Jesse Buerk, Sarah Moran

Goals:

Review PennDOT's 5-year resurfacing program for locations in Southeastern Pennsylvania that are bicycle network priorities. Screen segments in suburban counties for priority and feasibility. Conduct capacity analysis on suburban segments where necessary. Conduct concept development and capacity/technical analysis on selected Philadelphia segments to identify safe bicycle improvements that could be accommodated as part of resurfacing projects while balancing impacts on other modes and roadway needs.

Description:

PennDOT paving projects provide the City of Philadelphia and the suburban counties an opportunity to re-evaluate the operations, safety, and striping configurations of state roads. This project supports two parallel, ongoing PennDOT Connects project development pipelines: one in the City of Philadelphia, and one in the suburban counties.

In the City of Philadelphia, DVRPC will support continued expansion of the bicycle network and renewed focus on safety through Vision Zero street redesigns by first, assisting the City and PennDOT in identifying roadways on the PennDOT resurfacing plan that are the best candidates for bike-friendly redesign. This will be based on factors like timing, favorability for redesign based on an initial screening-level review, and role in the planned network. Next, staff will conduct technical work to develop planning-level design concepts. Depending on the characteristics of a given corridor, concept refinement typically requires capacity analysis in Synchro to assess the impacts of lane configuration changes on traffic movements, and sometimes network analysis to assess the likely impact of capacity changes on other roadways. An initial scoping review in collaboration with City and PennDOT staff will determine the complexity of the priority projects and level of analysis required, which will in turn determine the number and extents of locations to be evaluated--with a target of 2-4 projects to be evaluated in detail during the course of the fiscal year.

In the suburban counties, DVRPC will continue to support PennDOT District 6 in coordinating communication between the District, county planners, the Bicycle Coalition of Greater Philadelphia (BCGP), and municipalities to identify, prioritize, and screen segments for bike-friendly improvements. DVRPC will also work with program partners to identify segments that require more detailed analysis to determine the traffic impact of the proposed bike-friendly treatments. For selected segments, DVRPC will collect data and provide traffic analysis and modeling

support to evaluate these impacts. DVRPC will also assist PennDOT and the counties with outreach to municipalities to facilitate the process of submitting an official request to implement bike-friendly improvements.

Tasks:

1. City of Philadelphia Program

- a. Work with City and PennDOT staff to identify candidates for bike-friendly redesign on PennDOT's 5-year paving plan.
- b. Work with City and PennDOT staff to develop initial concept plans or build scenarios for these candidate corridors.
- c. Collect data and provide traffic analysis and modeling support to evaluate the facility and network-level traffic impacts of the initial concepts, as necessary.
- d. Refine initial concepts as appropriate based on traffic analysis findings.
- e. Prepare memos for City and PennDOT staff review and documentation of each evaluated corridor's proposed configuration, traffic impacts, and anticipated benefits.

2. Suburban Program

- a. Coordinate priority and feasibility screening process with PennDOT District 6, county planners, the BCGP, and DVRPC staff for segments on PennDOT's 5-year resurfacing program.
 - b. Work with program partners to identify segments (depending on scale and complexity, this project is expected to accommodate 2-4 locations) in need of traffic modeling to determine whether bike-friendly improvements that would impact vehicle capacity will result in acceptable levels of service in the corridor.
 - c. For selected segments, collect data and provide traffic analysis and modeling support to evaluate the facility and network level traffic impacts of the concepts.
 - d. Assist PennDOT and counties with outreach to municipalities and coordination with projects as needed.
 - e. Enhance project tracking database based on user feedback and evolving program needs.
3. Support partner agencies in using the Bicycle LTS and Connectivity Analysis webtool, and enhance the tool by developing ways to improve LTS assignment and creating a more user-friendly web interface.

Products:

1. Continued maintenance of suburban project tracking database.
2. For segments selected for capacity analysis, memoranda documenting each evaluated corridor's proposed configuration, traffic impacts, and anticipated benefits, as appropriate.
3. Consensus projects with demonstrated benefit and local support for use in preparing new striping plans funded by MPMS #63406, "Retrofit for Bike Lanes and Shoulders" prior to resurfacing.

Beneficiaries:

PennDOT, counties, municipalities, pedestrians, bicyclists, the commuting public, and all users of roadways.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2021	\$200,000				\$200,000
2022					
2023					

*PennDOT Connects

PROJECT: 21-52-080 Downingtown Area Transportation Study - Phase II

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Sarah Moran

Project Manager: Camden Palvino

Goals:

Build upon the previous year's analysis of existing and future transportation conditions to identify improvements. Use traffic modeling tools to evaluate the efficacy of highway improvement alternatives. Propose appropriate design solutions and transportation demand management (TDM) strategies to improve multimodal mobility.

Description:

The Borough of Downingtown and surrounding municipalities have experienced significant increase in land development in recent years along with an attendant increase in traffic congestion. Many large-scale residential and mixed use developments have been approved. The majority of the study area is served by a low density road network, forcing most traffic onto state and US routes to complete longer trips. In addition, a number of significant Transportation Improvement Program (TIP) projects are slated for the coming years; these improvements are expected to change traffic circulation and operations.

In FY2020, DVRPC conducted area-wide traffic counts; collected and analyzed multimodal transportation data; prepared a comprehensive inventory of planned and approved land developments; and developed traffic models that reflect AM and PM Existing and future No Build roadway conditions. The project study area includes 13 intersections and associated roadways that are the focus of the analysis.

This project is a continuation of the FY2020 Downingtown Area Transportation Study, and the project study area remains unchanged. DVRPC will refine the future year 2045 No Build scenario if needed. DVRPC will work with the project Technical Advisory Committee (TAC) to identify transportation improvements to address the bottlenecks and issues identified through the previous year's work. DVRPC will evaluate AM and PM peak hour Build, or roadway improvement, alternatives using traffic modeling tools. Results, namely level of service (LOS) and an explanation of how proposed improvements may impact traffic circulation, will be shared with the TAC. Viable transportation improvements will be presented to the public. Similarly to the first phase of the project, this phase is intended to provide analysis for county and municipal officials to support short-term and capital project development and funding.

Tasks:

1. Refine the future year 2045 No Build scenario if needed.
2. Convene the project TAC comprised of the municipalities, Chester County

Planning Commission, SEPTA, and PennDOT to discuss Build alternatives and project deliverables.

- 3. Conduct additional observations in the field as needed.
- 4. Work with the TAC to identify transportation improvements to address issues identified through the previous year’s work.
- 5. Provide a detailed description of stormwater management solutions for 3 representative intersections or roadway segments within the study area.
- 6. Continue analysis of transit network as it impacts traffic congestion to inform transportation demand management recommendations.
- 7. Hold at least one public meeting to share traffic modeling results and receive input on Build alternatives.
- 8. Perform microsimulation modeling to assess future year 2045 Build alternatives.
- 9. Prepare a report that summarizes the findings of the study and outlines design solutions and transportation demand management strategies to improve multimodal mobility.

Products:

Report, datasets, and interim memorandums as appropriate.

Beneficiaries:

Downingtown Borough, Caln Township, East Caln Township, East Brandywine Township, Uwchlan Township, West Whiteland Township, West Bradford Township, East Bradford Township, Chester County, PennDOT, Amtrak, SEPTA, commuting public, and all users of study area roadways.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2021	\$150,000				\$150,000
2022					
2023					

*PennDOT Connects

**PROJECT: 21-52-090 Commuter Services/Mobility Alternatives Program
(Share-a-Ride)**

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Stacy Bartels

Goals:

To increase awareness of and encourage participation in the Mobility Alternatives Program (MAP) and the Share-A-Ride (SAR) commute match service, in order to help reduce traffic congestion and improve air quality in the region (specifically SE PA), focusing on work commutes during the peak travel times.

Description:

The Mobility Alternatives Program (MAP) is an education effort directed to employers located in southeastern Pennsylvania. DVRPC partners with local transportation management associations (TMAs) and other organizations as contractors who perform outreach to businesses in their specific service areas, informing employers of the benefits - to their employees and to the company - of encouraging and supporting various alternative commutes; employers are given a menu of options to consider and/or implement. Services are free to interested employers within the 5-county SE PA region. This program was initiated to fill the gap when the federal Employer Trip Reduction Program (ETRP) was rescinded in 1995. As this program is largely educational-focused, behavior change and participation levels are challenging to evaluate; contractors are urged to report effort while also maintaining data on activities and mode changes.

Two components of MAP are also available directly to commuters working in this region:

- 1) Share-A-Ride (SAR) is part of MAP employer services, but individual commuters who work in southeastern Pennsylvania can also access this internet-based service directly. There is no fee for using SAR.
- 2) the Emergency Ride Home (ERH) program serves as a "safety net" for those commuters working in southeastern Pennsylvania who commit to an alternate commute at least three days a week; ERH can help eliminate one of the main concerns of commuters who currently do not use transit or pooling as a way to work by offering a ride in case of a personal emergency. (Details for all programs related to MAP are on the DVRPC website.)

DVRPC leases the software for SAR, and coordinates and maintains the databases affiliated with SAR and ERH; DVRPC is also responsible for creating a coordinated regional marketing message and effort, and provides materials to be adapted and used by TMAs in their outreach efforts.

DVRPC works with the TMAs, PennDOT and the PA TMA Policy Committee (PC) in developing specific MAP-related and TMA Assistance grant work programs each

fiscal year, along with reviewing progress reports and reporting measurements. FY2021 administration will also include oversight of the TMA Competitive Grant Program (CGP) implemented in FY2020; this includes the work of three TMAs.

Tasks:

1. Work with PennDOT and the PA TMA Policy Committee in reviewing and approving TMA work programs and efforts; review monthly contractor progress reports. Note: PennDOT Central Office and each corresponding County Planning Commission/Department (CPC) receives, reviews and approves monthly invoices.
2. Ensure county planning partners are involved in work program development and in setting common measurable goals through the PA TMA Policy Committee.
3. Meet quarterly with contractors and PC (at least two joint meetings or conference calls per FY).
4. Ensure MAP contractors are reporting activities via narratives attached to invoices (monthly or quarterly) and quarterly quantitative data reports in a timely fashion. Compile and summarize quarterly reports on progress, per their submissions, for PC review.
5. Develop a marketing strategy brief and annual budget.
6. Develop regional media strategies and schedule, as appropriate and as budget allows.
7. Produce outreach and marketing materials for all contractors to use, as necessary.
8. Maintain websites and databases for use by TMAs and the public.
9. Maintain contract and licenses with software company for SAR; provide periodic training for contractors.
10. Utilize database of SAR applicants to report on increases in participation, estimate any mode changes, and communicate with applicants as needed.
11. Review and reimburse as applicable any submissions for use of the ERH program by registered participants.
12. Coordinate promotional, outreach and implementation efforts between MAP contractors and Commute with Enterprise (formerly Enterprise Rideshare), establish several new vanpools in this region, and monitor progress on this effort. Continue to offer and manage the gas card incentive program for new carpools.
13. Participate in any national or statewide TDM efforts (ex. ACT and MPO TDM Roundtable), as appropriate and allowable; continue to participate on the PPTA Rideshare Committee.
14. Assist with air quality efforts as requested.

Products:

1. Annual marketing brief and budget.
2. Media plan.
3. Marketing and informational materials, as needed.
4. Databases for SAR and ERH. Communication with applicants, as needed. Analysis of impact of media placements on website traffic and SAR applications.
5. Training on ridematch software and other TDM options, as needed.
6. Quarterly and annual aggregate progress reports for PC.

Beneficiaries:

Commuters who work in southeastern Pennsylvania, area employers, TMAs, Pennsylvania member governments, and PennDOT.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$251,000				\$251,000
2021	\$251,000				\$251,000
2022	\$251,000				
2023	\$251,000				

*PA TIP - MPMS #110460 - \$201,000 CAQ/ \$34,000 State 581/ \$16,000 RideECO

PROJECT: 21-52-100 University City Multimodal Capacity Study

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Gregory Krykewycz

Project Manager: Sarah Moran

Goals:

Support growth of University City as a regional asset and key part of the city's metropolitan center. Link land use and transportation scenarios to guide development decisions. Propose ways to accommodate hospital and institutional growth while managing congestion.

Description:

The City of Philadelphia supports the growth of the Eds and Meds sector as an important economic engine for the Philadelphia region. In recent years, university- and hospital-related developments in the University City area have grown rapidly, bringing thousands of jobs and an unprecedented level of peak hour congestion in this part of the region's Metropolitan Center. Major institutions have indicated that many of their employees and visitors are automobile-dependent, partly due to activity hours that do not always correspond with peak transit service, and a recently-conducted TCDI study recommended expanding intersections in 6 locations to add vehicle capacity.

The City's interest is in accommodating growth, but also in ensuring that University City remains safe and accessible for all modes of travel, including transit, bicycling, and walking. This project will gather and synthesize existing land use and transportation plans by institutional stakeholders and city agencies, and develop future growth scenarios to create a clear picture to inform city land use and transportation policy. City departments will work with stakeholders to study how land use data, population and employment projections, along with transportation and transit analysis, can shape recommendations for future land use, public capital investment, and regulatory steps to relieve congestion. To support this collaborative effort, DVRPC will conduct highway and transit capacity analyses under several buildout scenarios.

Tasks:

1. Form a steering committee comprised of City agencies (PCPC, OTIS, Streets, Commerce), PIDC, University City District, SEPTA, PennDOT, Amtrak, real estate/facilities representatives from key institutions (Penn, Drexel, CHOP), and other stakeholders as appropriate.
2. In consultation with steering committee, determine study area boundaries.
3. Gather and inventory data on recent development history and trends, as well as pending and planned development and infrastructure proposals by public and private stakeholders.
4. Assemble development plans and proposals into up to two (2) buildout scenarios.

- 5. Work with steering committee to select a single 'best realistic' buildout scenario for use in forecasts.
- 6. Conduct current year, future no-build (which will include future population/employment from the selected buildout scenario, with the current transportation network plus already-funded projects), and build (adding stakeholder transportation improvement proposals) travel demand forecasts using the regional travel demand model (TIM 2.X). There will be three (3) forecast scenarios in total.
- 7. Use model outputs to evaluate highway and transit capacity chokepoints under each forecast scenario, and potential pedestrian and bicycle connectivity tradeoffs, which can be used to understand and prioritize intersections or corridor sections for further analysis.
- 8. As remaining analysis capacity permits, work with steering committee to identify 1-2 specific problem areas for a closer look. Depending on the size and complexity of the selected problem area(s), traffic counts will be collected and Vissim will be used for more refined analysis at those locations. If earlier project tasks are larger than expected (especially Task 3), this task may be deferred.
- 9. Prepare a final report summarizing the analysis and its findings.

Products:

Report, datasets, and other interim deliverables as appropriate.

Beneficiaries:

City of Philadelphia, University City institutional stakeholders, PennDOT, SEPTA, University City District

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2021	\$125,000			\$25,000	\$100,000
2022					
2023					

*PA Supplemental Land Use

PROJECT: 21-52-110 ExPo: Experimental Pop-ups Program

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Betsy Mastaglio

Project Manager: Logan Axelson, Sarah Moran

Goals:

Assist communities (counties, municipalities, community/neighborhood groups, or partnerships therein) in the region in implementing innovative solutions to transportation problems through demonstration, or pop-up projects. The program will work with up to three (3) communities to design, implement, and measure projects that apply various pedestrian, bicycle, transit, and roadway strategies that address safety and placemaking in their respective communities.

Description:

Communities are increasingly moving toward planning and engineering projects that can be implemented without undue project delays and costs. These projects, sponsored by community groups, activists and municipalities, aim to raise awareness of safety, mobility, or placemaking goals by demonstrating a proposed design in context. By piloting projects, project sponsors can:

- Test a design strategy;
- Innovate and further understand new design interventions;
- Engage and educate stakeholders;
- Spark attention and conversation around a civic issue;
- Shorten project delivery timelines;
- Minimize disruption and cost; and
- Develop data-driven analysis and community support for funding applications.

DVRPC staff will work with selected community partnerships to advance a design intervention that addresses safety, mobility, and/or placemaking goals. Staff will develop concept design(s) for the project, identify and coordinate with appropriate agencies, assist with public outreach, create educational and promotional materials, identify performance measures, and create and implement data collection through intercept surveys, online polling, and/or multimodal traffic counts. DVRPC will summarize the project in an easy-to-understand summary, either as a webpage, webmap/story map, slide show, handout, or brochure. Summaries can be used by project sponsors to determine whether to pursue permanent installation of the piloted solution.

These pilots and their outcomes will engage and educate the public, agency staff, and elected leaders throughout the DVRPC region so that they may advance their own pedestrian, bicyclist, and placemaking strategies. This first year of the program aims to focus on representative project types, level of design intervention, and geographies in order to tailor a long-term program that best serves the region.

Projects may vary in scale and will be selected based on where there is a committed partner, demonstrated need, and a possible implementation that can be done with minimal materials cost. Some of these activities may also require DVRPC to purchase materials and supplies or other services to meet program goals.

Tasks:

1. Identify up to three (3) locations for pilot projects. DVRPC staff will identify projects that: have a motivated project sponsor, have a direct transportation or placemaking solution to be tested/piloted, and can be designed and implemented within 3-6 months with available community/stakeholder resources (materials and funding). At least one pilot will occur in both PA and NJ.
2. Meet with project sponsor(s) to determine project goals and objectives. Identify a stakeholder group of project partners and community groups.
3. Meet with stakeholder group to confirm project goals and objectives.
4. Prepare planning-level conceptual designs in coordination with stakeholders.
5. Facilitate coordination of artist, vendor, and volunteer instructions, availability of materials, pilot staging, insurance, and permit requirements.
6. Create promotional and educational materials to be displayed on-site and on-line that explain the design strategies and pilot program.
7. Identify performance measures which may include intercept surveys, on-line polling, vehicle, pedestrian or bicyclist counts, or speed measurements.
8. Be present and advise during project temporary installation.
9. Create and share pilot summary documenting design, schedule and cost, materials, photos and performance measure outcomes.

Products:

Pilot summaries including plans, photos, and performance measures of projects.

Beneficiaries:

DVRPC partners, community and arts groups, traveling public, residents, and local businesses.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2021	\$200,000				\$200,000
2022					
2023					

*PennDOT Connects \$100,000, NJ TIP DB #X30A \$100,000 STBGP-PHILA

PROJECT: 21-52-120 Ben Franklin Bridge Eastbound Access

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Sarah Moran

Project Manager: Al Beatty, Kelsey McElduff

Goals:

Improve safety and connectivity for bicycles and pedestrians in the vicinity of the Benjamin Franklin Bridge on the west side. Identify linkages between existing and proposed bicycle, pedestrian, and transit facilities, and evaluate potential roadway realignment to support multimodal access, particularly on the 5th Street and 6th Street approaches to the Ben Franklin Bridge (eastbound).

Description:

The eastbound entrance to the Ben Franklin Bridge is surrounded by attractions and amenities for pedestrians, bicyclists, and transit riders. A newly completed ADA-compliant ramp on the Camden side of the bridge has improved accessibility for pedestrians and bicyclists of all ages and abilities to access the bridge. However, heavy traffic and a roadway design that is primarily vehicle-oriented continue to pose a barrier to multimodal bridge access on the Philadelphia side. This project will explore alternatives for roadway reconfiguration as well as other streetscape improvements to provide multimodal connections between Franklin Square Park, Monument Plaza, the bicycle and pedestrian bridge path, and upcoming or proposed facilities such as the Franklin Square PATCO station and Race Street bike lane.

The study area will include 6th Street from Callowhill Street to Arch Street, 5th Street from Arch Street to Race Street, Race Street from 7th Street to 4th Street, the I-676 off-ramp at 6th Street, and the eastbound on-ramps to the bridge. The project will evaluate traffic operations based on existing conditions as well as with projected 2045 traffic volumes, and lane reconfiguration alternatives will be developed and evaluated for operational feasibility. Roadway realignment alternatives will be evaluated with a focus on the 5th Street and 6th Street approaches to the Ben Franklin Bridge (eastbound). Stakeholder meetings and public outreach will be conducted to guide the development of recommendations.

Tasks:

1. Form a steering committee comprised of representatives from relevant agencies and community groups. This group will be convened periodically throughout the study to inform the project approach and recommendations.
2. Review prior studies related to the study area, including the Pennsylvania Horticultural Society (PHS) study of Monument Plaza.
3. Document existing conditions including roadway geometry, signal timing, bicycle, pedestrian, and transit facilities, and crash history. Collect data through field visits and other means to support existing conditions analysis.

4. Conduct automatic traffic recorder (ATR) and turning movement traffic counts at key intersections to be used in modeling efforts.
5. Identify and document major transportation infrastructure improvements (roads, bridges, and transit) as well as commercial and residential developments planned for the area.
6. Prepare a calibrated current year and future year (2045) regional model subcut for the study area to determine peak hour traffic volumes.
7. Prepare a microsimulation model including roadway and intersection geometry, traffic control, and signal timing plans.
8. Develop conceptual plans and diagrams for roadway configuration alternatives and other treatments.
9. Evaluate the impact of proposed treatments on traffic flow, producing performance measures such as delay/level of service, queuing, and travel time.
10. Evaluate the impact of proposed treatments on multimodal (bicycle/pedestrian/transit) network accessibility, safety, and quality.
11. Prepare planning-level cost estimates for proposed treatments.
12. Collect input from the public (method and frequency to be determined) to inform final recommendations and evaluate community support.
13. Provide a recommended alternative for roadway alignment.
14. Identify opportunities for implementation, including funding opportunities and stakeholder/agency roles.

Products:

1. Meeting materials including steering committee meetings and public workshops.
2. Existing traffic volumes and future year projections.
3. Conceptual plans and cost/benefit analysis for proposed treatments.
4. Final report summarizing recommendations.

Beneficiaries:

Delaware River Port Authority, City of Philadelphia, and the traveling public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2021	\$180,000				\$180,000
2022					
2023					

*PA TIP MPMS #114914 \$180,000 STU/Toll Credit Match

PROJECT: 21-53-020/025 HPMS and Functional Classification System (PA & NJ)

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Joshua Rocks

Project Manager: Charles Henry, Jonathan Ferullo

Goals:

Improve efficiency of the region's transportation system by providing an updated Highway Performance Monitoring System and Functional Classification System to meet FHWA requirements and determine improvement.

Description:

This project will collect and update traffic characteristics of the HPMS links and Highway Functional Classification System. HPMS is a database system designed to annually assess the physical and operational characteristics of approximately 300 selected non-interstate highway links. This and other urban area information will be used at the national level to assess system condition and usage and to allocate highway funding.

The Highway Functional Classification is a system of highway designations by area type and facility type. One use of a link's classification is to determine federal funding eligibility for improvement projects. DVRPC works with member governments and state DOTs in updating the highway classifications to reflect changing conditions.

Tasks:

1. Collect traffic information, geometric, and operational characteristics for approximately 300 sample links of the HPMS network in the Pennsylvania portion of the region.
2. Gather volume/classification counts for 100 non-interstate links.
3. Prepare field forms and collect traffic counts for 40 links on the New Jersey portion of the region.
4. Enter counts collected during the year into the DVRPC Traffic Count system.
5. Transmit data to PennDOT and NJDOT by specified dates.
6. Review, coordinate, and process requests for functional classification changes from state, county, and local governments.
7. Revise the functional classification system based on these requests.

Products:

1. Updated HPMS data files of physical and operational characteristics.
2. Database of counts taken in New Jersey and Pennsylvania.
3. Record of requests for functional classification changes.
4. Updated functional classification maps.

Beneficiaries:

States, counties, and cities.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$200,000	\$200,000			
2021	\$185,000	\$185,000			
2022	\$185,000				
2023	\$185,000				

PROJECT: 21-53-030 PennDOT District 6-0 Traffic Volume Data

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Joshua Rocks

Project Manager: Charles Henry

Goals:

Improve efficiency of the region's transportation network by providing travel mode volume data to design highway improvements in the Pennsylvania portion of the Delaware Valley region.

Description:

This continuing project provides PennDOT District 6-0 with specific volume data at locations in Bucks, Chester, Delaware, Montgomery, and Philadelphia counties for studies primarily related to traffic signals and controls. Depending on the location and type of information required, these data may include one or more of the following: manual vehicle classification counts; turning-movement counts; bicycle counts; pedestrian counts; physical characteristics of the intersection; descriptions of adjacent land use, particularly schools; and other appropriate information. This program also supports ongoing equipment needs and maintenance costs for permanent bicycle and pedestrian counting stations.

Tasks:

1. Review PennDOT District 6-0 requests and prepare assignments for field personnel to collect data.
2. Collect data for one of the following types of studies : (a) video or manual intersectional vehicle turning movements recorded in 15-minute time increments; (b) 48-hour portable traffic recorder counts by hour; (c) video or manual truck classification hourly counts; and (d) weeklong bicycle/pedestrian counts in 15-minute time increments.
3. Review, process, and tabulate field count data. Convert recorder counts to AADT (motorized) and AADB and AADP (non-motorized).
4. Enter counts into DVRPC Traffic Count System and transmit to PennDOT and member governments.
5. Transmit appropriate field data to PennDOT District 6-0 office and other entities as appropriate.

Products:

1. Data Files.
2. Responses to specific District 6-0 requests.

Beneficiaries:

PennDOT.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$300,000				\$300,000
2021	\$300,000				\$300,000
2022	\$300,000				
2023	\$300,000				

*PA State Appropriation 582 Funds

PROJECT: 21-59-700 Member Government Special Studies

Responsible Agency: Delaware Valley Regional Planning Commission

Project Manager: John Ward

Goals:

Improve the efficiency of the region's transportation network by preparing special sub-regional studies to supplement core planning efforts.

Description:

Through the Supportive Regional Highway Planning Program (SRHPP) and Transit Support Program (TSP), DVRPC passes through federal highway and transit planning funds to member governments and transit operating agencies to support their core planning functions and their participation in the regional transportation planning process. The funds assist these organizations to develop and maintain their own plans, programs and data which helps inform the development of regional plans and programs such as the TIP, Long-Range Plan, and Congestion Management Process. In addition to providing direct support, both programs offer a limited amount of funding for special planning studies to address current areas of need for the recipients. In some cases, the recipients pass back the Special Study funding and request that the studies be conducted by DVRPC staff because of some specific expertise or staff capacity. Detailed individual scopes of work for each Special Study are found in Chapters Three and Four of this document. This project represents the tasks and combined budgets of those Special Studies.

Tasks:

1. City of Philadelphia Traffic Counting Program (21-60-051)
2. Camden County Traffic Counting Program (21-61-070)
3. Gloucester County Traffic Counting Program (21-61-080)
4. Mercer County Traffic Counting Program (21-61-090)
5. Southeastern Pennsylvania Transit Planning and Technical Assistance - Philadelphia Transit Plan (21-63-008)
6. SEPTA Technical Assistance - Trolley Modernization Operations and Design Support (21-63-009)
7. Phoenixville Passenger Rail - Ridership Forecasts (21-63-007)
8. Rolling License Plate Surveys – PA (21-63-010)
9. NJ Transit Technical Assistance - Mercer County Bus Forecasts (21-63-024)
10. NJTRANSIT Transit Survey Program (21-63-026)
11. Rolling License Plate Surveys - NJ (21-63-027)

Products:

1. Technical memo, database, mapping or report for each study.

Beneficiaries:

Member governments and other agencies.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$746,200				\$746,200
2021	\$853,944				\$853,944
2022	\$0				
2023	\$0				

* PA and NJ Supportive Regional Highway Planning Program; PA and NJ Transit Support Program

PROJECT: 21-59-701 Carryover and Other Projects

Responsible Agency: Delaware Valley Regional Planning Commission

Project Manager: John Ward

Goals:

Improve the efficiency of the region's infrastructure by preparing special studies for collecting data, improving the existing transportation system and other infrastructure, environmental clearance process, and related planning and coordination needs as required.

Description:

This project represents work that was initiated in FY19 and will carryover into FY20 as well as new projects that come in during the year after the final UPWP has been approved by the DVRPC Board. Each new project that comes in, includes a specific funding source which is additional funding to DVRPC's budget and is presented to the RTC and Board for approval as a Work Program amendment. These projects may include development of traffic forecasts on a specific facility, a grant from a federal agency that supports a federal program, or a grant from a non-profit organization to provide technical services or guidance.

Tasks:

- 1. Conduct studies or provide services as required.

Products:

- 1. Technical memo or report for each study.

Beneficiaries:

Member governments and other agencies.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$776,327				\$776,327
2021	\$888,701			\$40,000	\$848,701
2022	\$0				
2023	\$0				

* Projects to be defined



PHOTO BY ANDREW SVEKLA

CHAPTER 3A

PA Supportive Regional Highway Planning Program (SRHPP)

JUNE 2020

DELAWARE VALLEY
 **dvrpc**
REGIONAL
PLANNING COMMISSION

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Table 6: PA Supportive Regional Highway Planning Program

Core Projects					
Project Number	Agency	Project	FY 2021 Budget		
			Cash	Match	Total
21-60-010	Bucks County	Supportive Regional Highway Planning	\$84,000	\$21,000	\$105,000
21-60-020	Chester County	Supportive Regional Highway Planning	\$121,600	\$30,400	\$152,000
21-60-030	Delaware County	Supportive Regional Highway Planning	\$60,800	\$15,200	\$76,000
21-60-040	Montgomery County	Supportive Regional Highway Planning	\$126,400	\$31,600	\$158,000
21-60-050	City of Philadelphia Streets Department	Supportive Regional Highway Planning	\$185,200	\$46,300	\$231,500
21-60-051 ¹	City of Philadelphia/ DVRPC	Traffic Counts	\$50,000	\$12,500	\$62,500
Program Total			\$628,000	\$157,000	\$785,000

1. Project work will be performed by DVRPC Staff. Match (\$12,500) will be added to the City of Philadelphia Streets Department Core Agreement.

PROJECT: 21-60-010 Bucks County: Supportive Regional Highway Planning Program

Responsible Agency: Bucks County Planning Commission

Program Coordinator: Kwan Hui

Project Manager: John Ward

Goals:

Improve the efficiency of the region's transportation network by participating in sub-regional transportation core planning efforts.

Description:

This is a continuing project that provides for county participation in the regional transportation planning process and the maintenance of county-level plans, programs, and data to support the regional transportation planning effort. It ensures local government and citizen coordination of regional and county planning activities, and provides technical assistance to local governments on regional, state, and county-level transportation projects.

Tasks:

Task I - Program Administration and Coordination

1. Participate in the development of DVRPC's Planning Work Program and Bucks County SRHPP for next fiscal year.
2. Review transportation reports and correspondence and provide responses.
3. Perform general administrative duties, including liaison and interagency coordination.
4. Perform contract administration, including the preparation and submission of Quarterly Progress Reports/Invoices.
5. Attend monthly DVRPC Board and Regional Technical Committee meetings and other meetings with federal, state, and local transportation agencies.
6. Respond to information requests, including those from the public.
7. Perform public participation as appropriate.

Task II - Transportation Planning Data and Analysis

1. Monitor traffic count data.
2. Disseminate transportation information and data.
3. Integrate traffic information into GIS databases. Provide periodic maintenance of these databases.
4. Maintain the online Transportation-related GIS Interactive Mapping Applications, and provide periodic maintenance of these Mapping Applications.
5. Attend DVRPC IREG, future Imagery Acquisition, and other steering committee meetings.
6. Assist with local asset data collection, as requested.

Task III - Transportation Improvement Program (TIP)

1. Maintain an inventory of proposed transportation improvements in Bucks County for the TIP.
2. Review and evaluate new or existing proposals for inclusion in the TIP.
3. Inventory and prioritize all existing and new projects for the TIP.
4. Participate and assist in the TIP update and maintenance processes.
5. Assist PennDOT in the maintenance and update of the Twelve Year Program.
6. Monitor funding programs and opportunities, and provide programming information to county officials, legislators and local officials.
7. Coordinate with DVRPC, PennDOT, municipalities, and other project sponsors on the implementation of programmed improvements
8. Participate and assist PennDOT and DVRPC with PennDOT Connects.

Task IV - Transportation System Program

1. Work with DVRPC and PennDOT on congestion management strategies (CMP).
2. Provide technical assistance to municipalities concerning CMP implementation.
3. Promote inter-municipal coordination for transportation planning and other development-related issues.
4. Provide technical guidance to municipalities concerning the need for access controls along arterial highways.

Task V - Transportation Plan Maintenance

1. Maintain a comprehensive transportation plan.
2. Determine a strategy to implement transportation plan objectives that meet transportation improvements and clean air standards.
3. Coordinate with municipalities and regional planning agencies to implement transportation and clean air standards.
4. Provide input to DVRPC for short-range and long-range transportation planning studies.

Products:

1. Quarterly progress and expenditure reports and invoices.
2. Up-to-date inventory of proposed highway improvements.
3. Recommendations to DVRPC for regional TIP submissions and to PennDOT's Twelve Year Program.
4. Updated regional TIP.
5. Input on various transportation task forces.
6. Input to municipal requirements for new development.
7. Participate in municipal transportation planning efforts.
8. GIS databases and Mapping Applications.
9. Sample corridor evaluation and recommended improvements.
10. SRHPP Work Program for inclusion in next fiscal year's DVRPC Planning Work Program.
11. County project proposals for consideration in next year's UPWP, if available.

Beneficiaries:

Bucks County, state, municipalities, region, and public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$105,000	\$84,000			\$21,000
2021	\$105,000	\$84,000			\$21,000
2022					
2023					

*Local SILOC Match

PROJECT: 21-60-020 Chester County: Supportive Regional Highway Planning Program

Responsible Agency: Chester County Planning Commission

Program Coordinator: Kwan Hui

Goals:

Improve the efficiency of the region's transportation network by participating in subregional transportation core planning efforts.

Description:

This is a continuing project that provides for county participation in the regional transportation planning process and the maintenance of county-level plans, programs and data to support the regional transportation planning effort. It ensures local government and citizen coordination of regional and county planning activities, and provides technical assistance to local governments on regional, state and county-level transportation projects.

Tasks:

Task I - Program Administration and Coordination

1. Perform contract administration, including the preparation and submission of Quarterly Progress Reports/Invoices.
2. Participate in the development of the DVRPC Planning Work Program and Chester County SRHPP for next fiscal year.
3. Perform general administrative duties, including liaison and interagency coordination.
4. Attend monthly DVRPC Board and Regional Technical Committee meetings and other meetings with federal, state, and local transportation agencies.
5. Respond to information requests, including those from the public.
6. Perform public participation as appropriate.
7. Review transportation reports and correspondence and provide responses.

Task II - Transportation Improvement Program (TIP)

1. Maintain an inventory of proposed transportation improvements in Chester County for the TIP.
2. Review and evaluate new and/or existing proposals for inclusion in the TIP.
3. Inventory and prioritize all existing and new projects for the TIP.
4. Participate and assist in the update and maintenance of the DVRPC TIP and PennDOT Twelve Year Program.
5. Coordinate with DVRPC, PennDOT, municipalities, and other project sponsors on the implementation of programmed improvements.
6. Monitor transportation funding programs and opportunities, and provide programming information to county officials, legislators and local officials.
7. Participate and assist PennDOT and DVRPC with PennDOT Connects.

Task III - Transportation Plan Maintenance

1. Participate in DVRPC committees and provide input to DVRPC for studies concerning short-range and long-range transportation planning.
2. Maintain the county transportation plan and other county-wide plans or studies related to transportation.
3. Assist in the development of local transportation plans and studies. Coordinate with municipalities, DVRPC, PennDOT, TMAs, and developers.
4. Review traffic impact studies, land development plans, zoning changes, and Comprehensive Plans that impact the county and regional transportation plans.
5. Assist with local asset data collection, as requested.

Products:

1. Quarterly progress and expenditure reports and invoices
2. SRHPP Work Program for inclusion in next fiscal year's DVRPC Planning Work Program.
3. County project proposals for consideration in next year's UPWP, if available
4. Inventory of proposed transportation improvements
5. Twelve Year Program and TIP submissions, including an updated regional TIP.
6. Input on various transportation plans and studies
7. Correspondence on meetings and seminars attended related to highway planning.

Beneficiaries:

Chester County, state, municipalities, region, and public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$152,000	\$121,600			\$30,400
2021	\$152,000	\$121,600			\$30,400
2022					
2023					

*Local SILOC Match

PROJECT: 21-60-030 Delaware County: Supportive Regional Highway Planning Program

Responsible Agency: Delaware County Planning Department

Program Coordinator: Kwan Hui

Project Manager: John Ward

Goals:

Improve the efficiency of the region's transportation network by participating in subregional transportation core planning efforts.

Description:

This is a continuing project that provides for county participation in the regional transportation planning process and the maintenance of county-level plans, programs and data to support the regional transportation planning effort. It ensures local government and citizen coordination of regional and county planning activities, and provides technical assistance to local governments on regional, state, and county-level transportation projects.

Tasks:

Task I – Program Administration and Coordination

1. Perform contract administration, including the preparation and submission of Quarterly Progress Reports/Invoices.
2. Participate in the development of the next fiscal year's DVRPC Planning Work Program and Delaware County SRHPP.
3. Perform general administrative duties, including liaison and interagency coordination.
4. Respond to information requests, including those from the public.
5. Attend monthly DVRPC Board and Regional Technical Committee meetings and other meetings with federal, state, and local transportation agencies, such as DVRPC and Delaware County TMA meetings that are not for specific projects or studies.
6. Perform public participation as appropriate.
7. Review transportation reports and correspondence and provide responses.

Task II – Transportation Improvement Program (TIP)

1. Maintain an inventory of proposed transportation improvements in Delaware County for the TIP.
2. Review and evaluate new or existing proposals for inclusion in the TIP.
3. Inventory and prioritize all existing and new projects for the TIP.
4. Survey municipalities every two years for potential TIP funded projects.
5. Participate and assist in the update and maintenance of the DVRPC TIP and PennDOT Twelve Year Program.
6. Monitor transportation funding programs and opportunities, inform municipalities of funding programs and provide assistance to them, and advocate Delaware

County's position on this issue.

7. Provide programming information to county council, county executive director, legislative delegation, and municipal officials.
8. Coordinate with PennDOT, municipalities, and other project sponsors on the implementation of programmed improvements.
9. Participate and assist PennDOT and DVRPC with PennDOT Connects.

Task III – Transportation Plan Maintenance

1. Participate in the process to update the DVRPC Long-Range Plan.
2. Prepare highway/bicycle/pedestrian components of Delaware County Comprehensive Plan.
3. Prepare highway, bicycle, and pedestrian mobility components of municipal comprehensive plans (under contract with municipalities); review highway/bicycle/pedestrian components of draft municipal comprehensive plans (under Act 247 reviews).
4. Review land developments and traffic impact studies and provide comments on highway, bicycle, and pedestrian access to the Delaware County Planning Commission.
5. Participate in Delaware County, DVRPC, PennDOT, and municipal highway, bicycle, and pedestrian studies and planning efforts.
6. Assist with local asset data collection, as requested.
7. Develop a Complete Streets model ordinance and work with municipalities to customize to their needs.
8. Update 2009 Delaware County Bicycle Plan, including a point-to-point bicycle map with DVRPC assistance.

Products:

1. Quarterly progress and expenditure reports and invoices
2. SRHPP Work Program for inclusion in next fiscal year's DVRPC Planning Work Program.
3. Inventory of proposed transportation improvements.
4. Updated TIP and 12 Year Program submissions.
5. Correspondence on meetings and seminars attended related to highway planning.
6. Comments on land development plans.
7. Input on various transportation plans and studies.
8. County project proposals for consideration in next fiscal year's UPWP, if available.
9. Model Complete Streets Ordinance.
10. Updated County Bicycle Plan with Point-to-Point Map.

Beneficiaries:

Delaware County, municipalities, state, region, and public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$76,000	\$60,800			\$15,200
2021	\$76,000	\$60,800			\$15,200
2022					
2023					

*Local SILOC Match

PROJECT: 21-60-040 Montgomery County: Supportive Regional Highway Planning Program

Responsible Agency: Montgomery County Planning Commission

Program Coordinator: Kwan Hui

Project Manager: John Ward

Goals:

Improve the efficiency of the region's transportation network by participating in sub-regional transportation planning efforts.

Description:

This is a continuing project that provides for county participation in the regional transportation planning process and the maintenance of county-level plans, programs, and data to support the regional transportation planning effort. It ensures local government and citizen coordination of regional and county planning activities, and provides technical assistance to local governments on regional, state, and county-level transportation projects.

Tasks:

Task I – Program Administration and Coordination

1. Perform general administrative duties, including liaison and interagency coordination.
2. Review transportation reports and correspondence and provide responses.
3. Perform contract administration, including the preparation and submission of Quarterly Progress Reports/Invoices.
4. Participate in the development of the DVRPC Planning Work Program and Montgomery County SRHPP for next fiscal year.
5. Respond to information requests, including those from the public.
6. Attend monthly DVRPC Board and Regional Technical Committee meetings and other meetings with federal, state, and local transportation agencies.
7. Perform public participation as appropriate.

Task II – Transportation Improvement Program (TIP)

1. Maintain an inventory of proposed transportation improvements in Montgomery County for the TIP.
2. Review and evaluate new or existing proposals for inclusion in the TIP.
3. Inventory and prioritize all existing and new projects for the TIP.
4. Participate and assist in the update and maintenance of the DVRPC TIP and PennDOT Twelve Year Program
5. Monitor funding programs and opportunities, and provide programming information to county officials, legislators and local officials.
6. Coordinate with DVRPC, PennDOT, municipalities, and other project sponsors on the implementation of programmed improvements
7. Participate and assist PennDOT and DVRPC with PennDOT Connects.

Task III – Transportation Plan Maintenance and Implementation

1. Review traffic impact studies, zoning changes and new/ revised comprehensive plans that impact the county and regional transportation plans.
2. Participate in various transportation study task forces.
3. Enforce the county comprehensive plan, as well as Walk Montco and Bike Montco plans.
4. Assist with local asset data collection, as requested.
5. Organize and lead meetings among departments to implement the county's Complete Streets policy.

Products:

1. Updated regional TIP.
2. County Comprehensive plan implementation.
3. Public participation and outreach activities for Transportation Planning and Programming
4. SRHPP Work Program for inclusion in next fiscal year's DVRPC Planning Work Program.
5. Quarterly progress reports, closing report, and invoices.
6. County project proposals for consideration in next fiscal year's UPWP, if available.
7. Correspondence on meetings and seminars attended related to highway planning.

Beneficiaries:

Montgomery County, municipalities, state, region, and public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$158,000	\$126,400			\$31,600
2021	\$158,000	\$126,400			\$31,600
2022					
2023					

*Local SILOC Match

PROJECT: 21-60-050 Philadelphia: Supportive Regional Highway Planning Program

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Kwan Hui

Project Manager: John Ward

Goals:

Improve efficiency of the region's transportation network by participating in subregional transportation core planning efforts.

Description:

This is a continuing project that provides for county participation in the regional transportation planning process and the maintenance of county-level plans, programs, and data to support the regional transportation planning effort. It ensures local government and citizen coordination of regional and county planning activities, and provides technical assistance to local governments on regional, state, and county-level transportation projects.

Tasks:

Task I: Program Administration and Coordination

1. Review and comment on the Commission's staff reports.
2. Continue development of Certification Acceptance or Modified Certification Acceptance documents, standards, and/or procedures.
3. Identify and resolve differences among city and regional highway planning agencies.
4. Develop a work program for future "pass through" funds.
5. Participate in the development of the Philadelphia SRHPP and DVRPC Planning Work Program for the next fiscal year.
6. Attend monthly DVRPC Board and Regional Technical Committee meetings and other meetings with federal, state, and local transportation agencies.
7. Perform general administrative duties, including liaison and interagency coordination.
8. Perform contract administration, including the preparation and submission of Quarterly Progress Reports/Invoices.
9. Respond to information requests, including those from the public.
10. Perform public participation as appropriate.
11. Review transportation reports and correspondence and provide responses.

Task II: Transportation Improvement Program (TIP)

1. Participate and assist in the update and maintenance of the DVRPC TIP and PennDOT Twelve Year Program.
2. Develop, collect, and maintain information and data on individual transportation projects under construction for inclusion in the TIP and maintain an inventory of projects for capital program consideration.

3. Assist in developing project descriptions.
4. Coordinate preparation of the TIP with local community groups, elected officials, DVRPC, state agencies, and the public for the purpose of developing a regional TIP. This includes participation in various competitive funding programs.
5. Coordinate candidate projects with other city agencies to ensure that transportation capital projects are consistent with overall city and regional goals and objectives.
6. Develop a prioritization of projects and facilities under consideration for inclusion in the Capital Program.
7. Review and comment on the TIP with federal, state and regional agencies.
8. Coordinate city involvement for PennDOT's Twelve-Year Program.
9. Monitor and update the TIP as it relates to county and regional transportation objectives.
10. Coordinate and review projects with implementing agencies, including PennDOT and DVRPC.
11. Review certain "milestone" data for city federal-aid projects and provide updates to PennDOT.
12. Review and coordinate project cost estimates and breakdowns for programming with the PennDOT Program Management Committee (PMC).
13. Monitor funding programs and opportunities, and provide programming information to city officials and legislators.
14. Participate and assist PennDOT and DVRPC with PennDOT Connects.

Task III: TSMO Planning

1. Develop, maintain and prioritize an inventory of TSMO-type projects.
2. Identify TSMO deficiencies and candidate projects.
3. Review literature on TSMO planning.
4. Coordinate the City of Philadelphia TSMO programs.
5. Coordinate and participate in TSMO public forums.
6. Review and comment on TSMO studies and proposals for the county and region. Provide county input to the regional TSMO effort.
7. Review and comment, as required, on the recommended TSMO Plan report and assist and coordinate with DVRPC in the adoption of the plan, as may be appropriate.
8. Participate, coordinate, and assist in the implementation of regional TSMO strategies.
9. Assist and coordinate in the maintenance of the Regional TSMO plan through periodic update and plan amendments.
10. Assist and coordinate corridor-level analysis of a selected TSMO corridor for incorporation in the TIP in cooperation with PennDOT and DVRPC.

Task IV: Transportation Plan Maintenance/Technical Coordination

1. Analyze and evaluate the impact of proposed developments on transportation facilities.
2. Coordinate the city highway network with the regional highway network.
3. Identify and update those links of the city highway system that augment the regional system.

4. Review existing functional classification system.
5. Participate in development and implementation of a county and regional transportation planning work program, including participation at intra-city planning strategy meetings.
6. Participate in regional transportation study meetings, committees, community meetings, teams, panels, etc. Review and comment on data and reports developed as part of these studies.
7. Participate in the corridor analysis of locations, corridors, neighborhood commercial streets, and other highways.
8. Participate in local and regional intermodal improvement efforts such as "Transit First" and park/ride facilities, pedestrian/bicycle facilities and goods movement strategies.
9. Manage and oversee selected competitive grant awards.

Task V: Transportation Facilities/Data Files

1. Collect, coordinate, update and process traffic flow/volume information.
2. Review, analyze and evaluate traffic flow/volume data.
3. Inventory and assemble appropriate physical transportation facility data and put such information into an easily accessible and usable form.
4. Process automatic traffic recorder information through the MPO to ensure compatibility of data collection efforts with those in the surrounding areas.
5. Provide federal, state, county and regional agencies with traffic flow/volume data.
6. Assemble traffic information files that accurately reflect existing physical conditions resulting in more efficient revisions to the functional classification system and an equitable allocation of funding.
7. Expand traffic counting coverage throughout the city.
8. Perform technical coordination of studies, plans, committee reports, analyses, etc. concerning the city's highways and highway program.
9. Attend DVRPC IREG, future Imagery Acquisition, and other steering committee meetings.
10. Assist with local asset data collection, as requested.

Products:

1. Correspondence on meetings and seminars attended related to highway planning.
2. SRHPP Work Program for inclusion in next fiscal year's DVRPC Planning Work Program.
3. Successful completion of capital improvements.
4. An up-to-date highway capital improvement program for the City of Philadelphia.
5. Advancement of high-priority TSMO projects.
6. A plan showing any updated transportation facility data, functional class revisions, or other transportation system changes.
7. County project proposals for consideration in next fiscal year's UPWP, if available.
8. Quarterly progress reports, closing report, and invoices.
9. A program TIP document for use by the Commission and others.

Beneficiaries:

City of Philadelphia, state, region, and public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$243,200	\$185,200			\$58,000
2021	\$244,000	\$185,200			\$58,800
2022					
2023					

*\$58,800 Match (\$46,300 for 21-60-050, \$12,500 for 21-60-051)

PROJECT: 21-60-051 City of Philadelphia Traffic Counts

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Joshua Rocks

Project Manager: Charles Henry

Goals:

Obtain data needed for transportation, engineering, and pavement management studies.

Description:

The City of Philadelphia has requested that DVRPC perform a travel mode counting program. This information will be used for the city's transportation, planning, engineering and pavement management studies. DVRPC will provide vehicular, bicycle, pedestrian and crosswalk count information as well as speed studies at locations determined by the City's planning and engineering staff. This program also supports ongoing equipment needs and maintenance costs for permanent bicycle and pedestrian counting stations in the City of Philadelphia.

Tasks:

1. Schedule meetings with City of Philadelphia representatives to determine locations for conducting counts.
2. Collect travel data at selected locations, for vehicle volume and intersection turning movement, pedestrian, bicycle, crosswalk counts and speed studies where required.
3. Process data and develop annual average daily traffic volumes (AADT) based on a continuous 48 hours of an average week (motorized) or annual average daily bicycles (AADB) / annual average daily pedestrians (AADP) based on a week of data for non-motorized travel.
4. Check field data for accuracy.
5. Prepare annual summary data in tabular form and also present data individually by location with counts for individual hours.
6. Prepare and send count data to Philadelphia City Planning Commission, Streets Department, and Office of Transportation, Infrastructure, and Sustainability.

Products:

1. Detailed printouts showing hourly counts, turning movements, and AADT, AADB, or AADP for selected locations.

Beneficiaries:

Philadelphia City Planning Commission, City of Philadelphia Streets Department, City of Philadelphia Office of Transportation, Infrastructure, and Sustainability (oTIS), PennDOT, residents, and businesses.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$50,000	\$50,000			
2021	\$50,000	\$50,000			
2022					
2023					



PHOTO BY KAREN WHITAKER

CHAPTER 3B

NJ Supportive Regional Highway Planning Program (SRHPP)

JUNE 2020

DELAWARE VALLEY
 **dvrpc**
REGIONAL
PLANNING COMMISSION

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Table 7: NJ Supportive Regional Highway Planning Program

Core Projects					
Project Number	Agency	Project	FY 2021 Budget		
			Cash	Match	Total
21-61-010	Burlington County	Supportive Regional Highway Planning	\$39,755	\$9,939	\$49,694
21-61-020	Camden County	Supportive Regional Highway Planning	\$44,015	\$11,004	\$55,019
21-61-030	Gloucester County	Supportive Regional Highway Planning	\$39,100	\$9,775	\$48,875
21-61-040	Mercer County	Supportive Regional Highway Planning	\$34,130	\$8,532	\$42,662
21-61-060	City of Camden	Supportive Regional Highway Planning	\$24,000	\$6,000	\$30,000
Subtotal			\$181,000	\$45,250	\$226,250
Special Studies					
Project Number	Agency	Project	FY 2021 Budget		
			Cash	Match	Total
21-61-070 ¹	Camden County /DVRPC	Traffic Counting Program	\$60,000	\$15,000	\$75,000
21-61-080 ²	Gloucester County /DVRPC	Traffic Counting Program	\$60,000	\$15,000	\$75,000
21-61-090 ³	Mercer County /DVRPC	Traffic Counting Program	\$60,000	\$15,000	\$75,000
21-61-100 ⁴	Burlington County	Burlington County Street Map	\$24,000	\$6,000	\$30,000
21-61-110 ⁵	Gloucester County	Gloucester County Street Map	\$24,000	\$6,000	\$30,000
Subtotal			\$228,000	\$57,000	\$285,000
Program Total			\$409,000	\$102,250	\$511,250

1. Project work will be performed by DVRPC staff. Match (\$15,000) will be added to the Camden County core agreement and will be reflected in the contract.
2. Project work will be performed by DVRPC staff. Match (\$15,000) will be added to the Gloucester County core agreement and will be reflected in the contract.
3. Project work will be performed by DVRPC staff. Match (\$15,000) will be added to the Mercer County core agreement and will be reflected in the contract.
4. Project work will be performed by Burlington County and vendor. Match (\$6,000) will be added to Burlington County core agreement and will be reflected in the contract.
5. Project work will be performed by Gloucester County and vendor. Match (\$6,000) will be added to Gloucester County core agreement and will be reflected in the contract.

PROJECT: 21-61-010 Burlington County: Supportive Regional Highway Planning Program

Responsible Agency: Burlington County - Land Development

Program Coordinator: Kwan Hui

Project Manager: John Ward

Goals:

Improve the efficiency of the region's transportation network by participating in sub-regional transportation core planning efforts.

Description:

This is a continuing project that provides for county participation in the regional transportation planning process and the maintenance of county-level plans, programs, and data to support the regional transportation planning effort. It ensures local government and citizen coordination of regional and county planning activities, and provides technical assistance to local governments on regional, state, and county-level transportation projects.

Tasks:

Task I - Program Administration and Coordination

1. Attend monthly DVRPC Board and Regional Technical Committee meetings, and other meetings with federal, state, regional, and local transportation agencies.
2. Prepare and submit the Quarterly Progress Reports/Invoices.
3. Participate in the development of the DVRPC Planning Work Program and Burlington County SRHPP for next fiscal year.
4. Perform general administrative duties, including liaison and interagency coordination.
5. Review transportation reports and correspondence and provide responses.
6. Respond to information requests, including those from the public.
7. Perform public participation as appropriate.

Task II - Transportation Improvement Program (TIP)

1. Participate and assist in the TIP update and maintenance processes.
2. Provide feedback to the state and DVRPC on the TIP and Statewide TIP (STIP).
3. Maintain and provide to DVRPC an inventory of project candidates to be considered for inclusion of the local capital improvement program.
4. Maintain channels of communication with DVRPC, NJDOT, and the public regarding TIP project status.
5. Assist with the coordination of DVRPC Work Program projects as necessary (e.g. TCDI grant process).
6. Review and provide feedback on NJDOT Capital Program Screening Committee (CPSC) and Capital Program Committee (CPC) project requests
7. Participate in project selection and evaluation processes, as appropriate, including DVRPC competitive programs.

Task III - Transportation Plan Maintenance

1. Coordinate local governments land use and transportation policies.
2. Periodically review and update the Burlington County Transportation Plan.
3. Review proposed development to ensure compliance with the transportation plan and to assess its impact on existing and proposed transportation systems.
4. Update the priority list of projects generated by the transportation plan.
5. Participate in the development of Transportation Development Districts to further the goals of the transportation plan.
6. Produce and review maps and conceptual plans to be used for transportation planning.
7. Review regional, state and municipal transportation plans for consistency with the transportation plan.

Task IV - Transportation Planning Data and Analysis

1. Update and maintain the County Traffic Volume Map using data supplied by DVRPC as well as counts taken by the county.
2. Maintain accident files and analyze accident reports as a data source for the transportation planning effort.
3. Take traffic counts at selected locations to support transportation studies, to gauge the effectiveness of implemented or proposed transportation improvements, and to maintain the county's traffic count map.
4. Attend DVRPC IREG, future Imagery Acquisition, and other steering committee meetings.

Products:

1. Quarterly progress and expenditure reports and invoices
2. Correspondence on meetings and seminars attended related to highway planning.
3. County project proposals for consideration in next fiscal year's UPWP, if available.
4. SRHPP Work Program for inclusion in next fiscal year's DVRPC Planning Work Program.
5. Commentary on transportation reports when appropriate.
6. A federally approved TIP to maintain with DVRPC.
7. Various maps and/or plans used in planning transportation improvements.
8. Coordination of various transportation studies and projects to ensure an integrated transportation system.
9. Traffic Volume Map, available for public use.
10. Updated accident files.

Beneficiaries:

Burlington County, municipalities, state, region, and public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$52,694				\$52,694
2021	\$55,694				\$55,694
2022					
2023					

* NJ TIP - DB #X30A - \$39,755 STBGP-PHILA Cash- \$15,939 Match (\$9,939 for 21-61-010 , \$6,000 for 21-61-100)

PROJECT: 21-61-020 Camden County: Supportive Regional Highway Planning Program

Responsible Agency: Camden County - Department of Public Works - Division of Planning

Program Coordinator: Kwan Hui

Project Manager: John Ward

Goals:

To improve the efficiency of the region's transportation network by participating in subregional transportation core planning efforts.

Description:

This is a continuing project that provides for county participation in the regional transportation planning process and the maintenance of county-level plans, programs and data to support the regional transportation planning effort. It ensures local government and citizen coordination of regional and county planning activities, and provides technical assistance to local governments on regional, state and county-level transportation projects.

Tasks:

Task I - Program Administration and Coordination

1. Attend monthly DVRPC Board and Regional Technical Committee meetings, and other meetings with federal, state, regional, and local transportation agencies.
2. Prepare and submit the Quarterly Progress Reports/Invoices.
3. Participate in the development of the DVRPC Planning Work Program and Camden County SRHPP for next fiscal year.
4. Perform general administrative duties, including liaison and interagency coordination.
5. Review transportation reports and correspondence and provide responses.
6. Respond to information requests, including those from the public.
7. Perform public participation as appropriate.

Task II - Transportation Improvement Program (TIP)

1. Participate and assist in the TIP update and maintenance processes.
2. Provide feedback to the state and DVRPC on the TIP and Statewide TIP (STIP).
3. Maintain and provide to DVRPC an inventory of project candidates to be considered for inclusion of the local capital improvement program.
4. Maintain channels of communication with DVRPC, NJDOT, and the public regarding TIP project status.
5. Assist with the coordination of DVRPC Work Program projects as necessary (e.g. TCDI grant process).
6. Review and provide feedback on NJDOT Capital Program Screening Committee (CPSC) and Capital Program Committee (CPC) project requests
7. Participate in project selection and evaluation processes, as appropriate, including

DVRPC competitive programs.

Task III - Transportation Plan Maintenance

1. Coordinate local governments' land use and transportation policies with the regional and state Long-Range Plans.
2. Prepare modifications, as required to update the county's transportation planning process and coordinate with DVRPC.
3. Monitor and evaluate the impact of existing and proposed residential, commercial, and industrial development in terms of short- and long-range transportation facility improvements, including social, economic and environmental considerations, population growth and business growth.
4. Evaluate proposed Senate and Assembly bills pertaining to highway planning.
5. Estimate future land use activities (e.g. corridor delineation) including identification of high growth areas. Coordinate the activity with the growth center development patterns during the New Jersey State Development and Redevelopment Planning (SDRP) process, and "Smart Growth" grants.
6. Assist with the development and update of CMS corridors and strategies.

Task IV - Transportation Planning Data and Analysis

1. Develop and maintain a GIS-based Highway Asset Management database.
2. Field collection of highway asset data.
3. Attend DVRPC IREG, future Imagery Acquisition, and other steering committee meetings.

Products:

1. Quarterly progress and expenditure reports and invoices.
2. SRHPP Work Program for inclusion in next fiscal year's DVRPC Planning Work Program.
3. A federally approved TIP to maintain with DVRPC.
4. Correspondence on meetings and seminars attended related to highway planning.
5. Inventory and status of TIP projects.
6. Aerial photographs, DVRPC CMS and PMS updates, sign and signal management data updates.

Beneficiaries:

Camden County, municipalities, state, region, and public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$72,019				\$72,019
2021	\$70,019				\$70,019
2022					
2023					

* NJ TIP - DB #X30A - \$44,015 STBGP-PHILA Cash- \$26,004 Match

(\$11,004 for 21-61-020, \$15,000 for 21-61-070)

PROJECT: 21-61-030 Gloucester County: Supportive Regional Highway Planning Program

Responsible Agency: Gloucester County Planning Department

Program Coordinator: Kwan Hui

Project Manager: John Ward

Goals:

Improve the efficiency of the region's transportation network by participating in sub-regional transportation core planning efforts.

Description:

This is a continuing project that provides for county participation in the regional transportation planning process and the maintenance of county-level plans, programs and data to support the regional transportation planning effort. It ensures local government and citizen coordination of regional and county planning activities, and provides technical assistance to local governments on regional, state and county-level transportation projects.

Tasks:

Task I - Program Administration and Coordination

1. Attend monthly DVRPC Board and Regional Technical Committee meetings, and other meetings with federal, state, regional, and local transportation agencies.
2. Prepare and submit the Quarterly Progress Reports/Invoices.
3. Participate in the development of the DVRPC Planning Work Program and Gloucester County SRHPP for next fiscal year.
4. Perform general administrative duties, including liaison and interagency coordination.
5. Review transportation reports and correspondence and provide responses.
6. Respond to information requests, including those from the public.
7. Perform public participation as appropriate.

Task II - Transportation Improvement Program (TIP)

1. Participate and assist in the TIP update and maintenance processes.
2. Provide feedback to the state and DVRPC on the TIP and Statewide TIP (STIP).
3. Maintain and provide to DVRPC an inventory of project candidates to be considered for inclusion of the local capital improvement program.
4. Maintain channels of communication with DVRPC, NJDOT, and the public regarding TIP project status.
5. Assist with the coordination of DVRPC Work Program projects as necessary (e.g. TCDI grant process).
6. Review and provide feedback on NJDOT Capital Program Screening Committee (CPSC) and Capital Program Committee (CPC) project requests
7. Participate in project selection and evaluation processes, as appropriate, including DVRPC competitive programs.

Task III - Transportation Plan Maintenance

1. Coordinate county transportation policies with the regional and state long-range plans.
2. Monitor and evaluate the impact of proposed land development on existing and proposed highway and transit facilities.
3. Monitor certain state highway improvements and proposals.
4. Update the Gloucester County Official Map.
5. Maintain an update of the functional classification system.
6. Review regional, state, and municipal transportation policies for consistency with the county's plan.

Task IV - Transportation Planning Data and Analysis

1. Prepare and maintain a traffic volume map using data supplied by DVRPC as well as counts taken by the county and share traffic count data with interested parties.
2. Maintain data files supplied by NJDOT as a data source for the transportation efforts.
3. Maintain information on Management Systems such as Bridge, Pavement, Safety, etc.
4. Take traffic counts at selected locations to support transportation studies and to maintain the county's traffic map.
5. Develop and maintain a GIS database for traffic counts.
6. Attend DVRPC IREG, future Imagery Acquisition, and other steering committee meetings.

Products:

1. Quarterly progress and expenditure reports and invoices.
2. Correspondence on meetings and seminars attended related to highway planning.
3. SRHPP Work Program for inclusion in next fiscal year's DVRPC Planning Work Program.
4. A federally approved TIP to maintain with DVRPC.
5. A brief report on the activities that were undertaken in the planning/implementation of TIP projects.
6. Current and up-to-date version of the Official Map of County Highways and related transportation planning documents, as necessary.
7. Traffic Information available for public use.
8. Updated traffic counts at selected locations to support transportation planning efforts.
9. County project proposals for consideration in next year's UPWP, if available.

Beneficiaries:

Gloucester County, municipalities, state, region, and public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$65,875				\$65,875
2021	\$69,875				\$69,875
2022					
2023					

* NJ TIP - DB #X30A - \$39,100 STBGP-PHILA Cash - \$30,775 Match(\$9,775 for 21-61-030, \$15,000 for 21-61-080, \$6,000 for 21-61-110)

PROJECT: 21-61-040 Mercer County: Supportive Regional Highway Planning Program

Responsible Agency: Mercer County Planning Department

Program Coordinator: Kwan Hui

Project Manager: John Ward

Goals:

Improve the efficiency of the region's transportation network by participating in subregional transportation core planning efforts

Description:

This is a continuing project that provides for county participation in the regional transportation planning process and the maintenance of county-level plans, programs and data to support the regional transportation planning effort. It ensures local government and citizen coordination of regional and county planning activities and provides technical assistance to local governments on regional, state, and county-level transportation projects.

Tasks:

Task I - Program Administration and Coordination

1. Attend monthly DVRPC Board and Regional Technical Committee meetings, and other meetings with federal, state, regional, and local transportation agencies.
2. Prepare and submit the Quarterly Progress Reports/Invoices.
3. Participate in the development of the DVRPC Planning Work Program and Mercer County SRHPP for next fiscal year.
4. Perform general administrative duties, including liaison and interagency coordination.
5. Review transportation reports and correspondence and provide responses.
6. Respond to information requests, including those from the public.
7. Perform public participation as appropriate.

Task II - Transportation Improvement Program (TIP)

1. Participate and assist in the TIP update and maintenance processes.
2. Provide feedback to the state and DVRPC on the TIP and Statewide TIP (STIP).
3. Maintain and provide to DVRPC an inventory of project candidates to be considered for inclusion of the local capital improvement program.
4. Maintain channels of communication with DVRPC, NJDOT, and the public regarding TIP project status.
5. Assist with the coordination of DVRPC Work Program projects as necessary (e.g. TCDI grant process).
6. Review and provide feedback on NJDOT Capital Program Screening Committee (CPSC) and Capital Program Committee (CPC) project requests
7. Participate in project selection and evaluation processes, as appropriate, including DVRPC competitive programs.

Task III - Transportation Plan Maintenance

1. Develop and maintain a master plan for improvements to transportation facilities under County jurisdiction.
2. Coordinate local governments' land use and transportation policies with the regional and state long-range plans.
3. Communicate with the public about the master plan.
4. Review master plans being updated by municipalities to determine their consistency with the county transportation plan and resolve any differences, and ensure alternative modes of transportation are considered and compatible with regional transportation system.
5. Prepare modifications as required to the master plan and present to planning board for public hearing and adoption.
6. Review regional, state and local plans, particularly with respect to long-range plans, as required.
7. Work with regional partners to promote travel demand management, such as ridesharing, van-or carpooling and cycling

Task IV - Transportation Planning Data and Analysis

1. Review and compile statistical data and inventories as provided by state agencies, DVRPC, and private sources.
2. Manage enterprise GIS to support transportation planning, transportation asset management, and land use planning.
3. Land use, economic and demographic data compilation and analysis which support transportation planning.
4. Create and update transportation-related maps.
5. Attend DVRPC IREG, future Imagery Acquisition, and other steering committee meetings.

Products:

1. Quarterly progress and expenditure reports and invoices.
2. SRHPP Work Program for inclusion in next fiscal year's DVRPC Planning Work Program.
3. A federally approved TIP to maintain with DVRPC.
4. Highway data and analysis to the county and other governmental agencies, developers and citizens.
5. Correspondence on meetings and seminars attended related to highway planning.
6. Highway project analyses as they relate to new highway construction, functional classification and future planning activities.
7. Selective reports and new technical data files.
8. County project proposals for consideration in next fiscal year's UPWP, if available.
9. Maps, data, and/or studies used in planning transportation improvements

Beneficiaries:

Mercer County, municipalities, state, region, and public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$59,662				\$59,662
2021	\$57,662				\$57,662
2022					
2023					

* NJ TIP - DB #X30A - \$34,130 STBGP-PHILA Cash- \$23,532 Match(\$8,532 for 21-61-040, \$15,000 for 21-61-090)

PROJECT: 21-61-060 City of Camden - Supportive Regional Highway Planning Program

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Kwan Hui

Project Manager: John Ward

Goals:

Improve the efficiency of the region's transportation network by participating in subregional transportation planning efforts.

Description:

Manage and maintain the general administration of the program and maintain coordination and cooperation with federal, state, regional, and local agencies. Maintain public participation in the transportation planning process. Identify, prioritize, and analyze a capital program of federal and state-funded transportation improvements reflecting local input and coordination with state and regional agencies. Monitor implementation of the capital improvements. Assess impact of proposed land use on transportation facilities and recommend Camden City's position on certain regional transportation improvements and programs. Maintain and update data files required for the comprehensive transportation planning effort. Monitor various transportation indicators (e.g., traffic counts and turning movements). Retrieve and disseminate information as required.

Tasks:

Task I - Administration

1. Perform general and contract administrative duties.
2. Prepare quarterly progress reports, expenditure reports, annual completion report, and participate in the development of the DVRPC Planning Work Program and Camden City SRHPP for the next fiscal year.
3. Perform public participation as appropriate.
4. Review transportation reports and correspondence and provide feedback.
5. Attend meetings, including DVRPC monthly RTC meetings, quarterly progress report meetings, Planning Work Program meetings, and special meetings as required. Present data to Camden City for its use.
6. Respond to information requests.
7. Conduct interagency liaison and coordination.

Task II - Transportation Improvement Program

1. Monitor Federal Aid and STATE-DVRPC Program progress.
2. Maintain and inventory TIP projects and update project status. Maintain channels of communication with DVRPC, NJDOT, and the public regarding project status.
3. Participate and assist in the TIP update and maintenance processes.
4. Review and provide feedback on NJDOT Capital Program Screening Committee (CPSC) and Capital Program Committee (CPC) project requests

5. Participate in project selection and evaluation processes, as appropriate, including DVRPC competitive programs.

Task III – Transportation Plan Maintenance

1. Monitor and evaluate the impact of proposed land development on existing and proposed highway and transit facilities.
2. Monitor certain state improvements.

Task IV - Transportation Planning Data and Analysis

1. NJDOT’s Safety Voyager or NJDHTS’s Numetric Crash Analysis tool. Maintain data supplied by NJDOT as a data source for transportation planning effort.
2. Maintain information on roadways and bridges, such as condition, cartway width, rights of way, age, etc.
3. Attend DVRPC IREG, future Imagery Acquisition, and other steering committee meetings.

Products:

1. Quarterly progress and expenditure reports.
2. Brief reports on meetings and seminars attended related to highway planning.
3. Annual completion report.
4. SRHPP for the subsequent fiscal year.
5. Adopted Transportation Improvement Program
6. City project proposals for consideration in next fiscal year’s UPWP, if available.

Beneficiaries:

Camden City, Camden County, residents, businesses, and the region.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$33,000				\$33,000
2021	\$30,000				\$30,000
2022					
2023					

* NJ TIP - DB #X30A - \$24,000 STBGP-PHILA - \$6,000 Match

PROJECT: 21-61-070 Camden County - Traffic Counting Program

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Joshua Rocks

Project Manager: Charles Henry

Goals:

Obtain data needed for transportation, engineering, and pavement management studies.

Description:

Camden County has requested that DVRPC perform a travel mode counting program. This information will be used for the county's transportation, planning, engineering and pavement management studies. DVRPC will provide vehicular, bicycle, pedestrian and crosswalk count information at locations determined by the county's planning and engineering staff. This program also supports ongoing equipment needs and maintenance costs for permanent bicycle and pedestrian counting stations in Camden County.

Tasks:

1. Schedule meetings with Camden County representatives to determine locations for conducting counts.
2. Collect travel data at selected locations, for vehicle volume and intersection turning movement, pedestrian, bicycle and crosswalk counts where required.
3. Process data and develop annual average daily traffic volumes (AADT) based on a continuous 48 hours of an average week (motorized) or annual average daily bicycles (AADB) / annual average daily pedestrians (AADP) based on a week of data for non-motorized travel.
4. Check field data for accuracy.
5. Prepare annual summary data in tabular form and also present data individually by location with counts for individual hours.
6. Prepare and send data to Camden County for their use.

Products:

1. Detailed printouts showing hourly counts, turning movements, and AADT, AADB, or AADP for selected locations.

Beneficiaries:

Camden County, Camden City, NJDOT, residents, and businesses.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$56,000				\$56,000
2021	\$60,000				\$60,000
2022					
2023					

* NJ TIP - DB #X30A - \$60,000 STBGP-PHILA

PROJECT: 21-61-080 Gloucester County Traffic Counting Program

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Joshua Rocks

Project Manager: Charles Henry

Goals:

Obtain data needed for transportation, engineering, and pavement management studies.

Description:

The Gloucester County Planning Division has requested that DVRPC continue to perform a traffic counting program within Gloucester County. This information will be used for the county's transportation, planning, engineering, and pavement management studies. DVRPC will provide vehicular, bicycle, pedestrian, and crosswalk count information at locations determined by the county's planning and engineering staff. This program also supports ongoing equipment needs and maintenance costs for permanent bicycle and pedestrian counting stations in Gloucester County.

Tasks:

1. Schedule meetings with county planning and engineering representatives to determine locations for conducting counts.
2. Collect travel data at selected locations, for vehicle volume and intersection turning movement, pedestrian, bicycle and crosswalk counts where required.
3. Process data and develop annual average daily traffic volumes (AADT) based on a continuous 48 hours of an average week (motorized) or annual average daily bicycles (AADB) / annual average daily pedestrians (AADP) based on a week of data for non-motorized travel.
4. Check field data for accuracy.
5. Prepare annual summary data in tabular form and also present data individually by location with counts for individual hours.
6. Prepare and send count data for the county's GIS file and prepare traffic count map showing new locations.
7. Update the county's GIS traffic count file and map.

Products:

1. Detailed printouts showing hourly counts, turning movements, and AADT, AADB, or AADP for selected locations.
2. An updated traffic information file and GIS map.

Beneficiaries:

Gloucester County, municipalities, and NJ DOT.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$56,000				\$56,000
2021	\$60,000				\$60,000
2022					
2023					

* NJ TIP - DB #X30A - \$60,000 STBGP-PHILA

PROJECT: 21-61-090 Mercer County Traffic Counting Program

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Joshua Rocks

Project Manager: Charles Henry

Goals:

Obtain new traffic count data and compare with existing data in GIS format for transportation, engineering, and pavement management studies.

Description:

To supplement existing counts in the Transportation Development District, the county needs DVRPC to annually collect approximately 200 counts throughout the county.

In addition to vehicular counts, DVRPC will provide requested bicycle, pedestrian and crosswalk count information at locations determined by the county's planning and engineering staff.

Additionally, the county will incorporate developer traffic study count data into the County's GIS system so that the traffic count data collected as a result of this project will be linked to that produced by others. In this way the county will obtain the most accurate representation of traffic flow in the county. Once compiled, this data will be shared with municipalities in order to enhance their transportation study efforts.

This program also supports ongoing equipment needs and maintenance costs for permanent bicycle and pedestrian counting stations in Mercer County.

Tasks:

1. Schedule meetings with county planning and engineering representatives to determine locations for conducting counts in addition to cyclical vehicle counts.
2. Collect travel data at selected locations, for vehicle volume and intersection turning movement, pedestrian, bicycle and crosswalk counts where required.
3. Process data and develop annual average daily traffic volumes (AADT) based on a continuous 48 hours of an average week (motorized) or annual average annual daily bicycles (AADB) / annual average daily pedestrians (AADP) based on a week of data for non-motorized travel.
4. Check field data for accuracy.
5. Update the county's GIS traffic count file and map.
6. Prepare and send count data for the county's GIS file and prepare traffic count map showing new locations.

Products:

- 1. Detailed printouts showing hourly counts, turning movements, and AADT, AADB, or AADP for selected locations.
- 2. Maps, tables, and text for transportation element of the master plan.

Beneficiaries:

Mercer County; municipalities in which counts are taken; and NJDOT.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$56,000				\$56,000
2021	\$60,000				\$60,000
2022					
2023					

* NJ TIP - DB #X30A - \$60,000 STBGP-PHILA

PROJECT: 21-61-100 Burlington County Street Map

Responsible Agency: Burlington County

Program Coordinator: Kwan Hui

Project Manager: John Ward

Goals:

Prepare a new street map of Burlington County by providing digital and paper content to reflect current conditions.

Description:

The current county street map is outdated and needs to be updated. The map will be produced using digital information from existing data files, and hardcopies will be provided (though many people use digital devices for mapping purposes, paper maps are still requested).

Tasks:

1. Coordinate with various units in Burlington County to determine appropriate information to appear on the map.
2. Solicit written quotes and award contracts.
3. Prepare draft map.
4. Print copies of a updated full-color County Map.
5. Develop and make available an interactive, web road map

Products:

1. Updated full-color County Maps containing all streets, County Roads, State and Interstate Highways, State, County and municipal parks, the County Fair Grounds, State Wildlife Management Areas, municipal building locations, industrial parks, airports, hospitals, and colleges.
2. A online digital interactive map.

Beneficiaries:

Burlington County, municipalities, state, region, and public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2021	\$24,000				\$24,000
2022					
2023					

* NJ TIP - DB #X30A - \$24,000 STBGP-PHILA

PROJECT: 21-61-110 Gloucester County Street Map

Responsible Agency: Gloucester County

Program Coordinator: Kwan Hui

Project Manager: John Ward

Goals:

Prepare a new street map of Gloucester County by providing digital content to reflect current conditions.

Print 5,000 copies of street map for distribution by County Government Offices.

Description:

In 2008, an original Gloucester County map was designed, and 5,000 copies were printed for distribution. Though many people use digital devices for mapping purposes, paper maps are still requested. The map will be produced using digital information from existing data files.

Tasks:

1. Coordinate with staff from Gloucester County Administrative, Public Works-Planning Division, Economic Development and Farmland Preservation Departments to determine appropriate information to appear on the map
2. Solicit written quotes and award contracts.
3. Prepare draft map.
4. Print 5,000 copies of a new full-color County Map.
5. Implement an on-line interactive road map

Products:

1. 5,000 full-color hardcopies of County Maps containing all streets, County Roads, State and Interstate Highways, State, County and municipal parks, the County Fair Grounds, State Wildlife Management Areas, municipal building locations, industrial parks, airports, hospitals, and colleges.
2. On-line digital interactive map

Beneficiaries:

Gloucester County, municipalities, region, state, private organizations and institutions, residents, and tourists

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2021	\$24,000				\$24,000
2022					
2023					

* NJ TIP - DB #X30A - \$24,000 STBGP-PHILA



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CHAPTER 4A

PA Transit Support Program (*TSP*)

JUNE 2020

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Table 8: PA Transit Support Program

Core Projects					
Project Number	Agency	Project	FY 2021 Budget		
			Cash	Match	Total
21-63-001	Bucks County	Transit Planning and Programming	\$61,734	\$15,434	\$77,168
21-63-002	Chester County	Transit Planning and Coordination	\$46,069	\$11,517	57,586
21-63-003	Delaware County	Transit Planning and Coordination	\$87,504	\$21,876	\$109,380
21-63-004	Montgomery County	Transit Planning and Implementation	\$77,400	\$19,350	\$96,750
21-63-005	Philadelphia Office of Transportation, Infrastructure, and Sustainability	Transit Planning and Programming	\$98,535	\$24,633	\$123,168
21-63-006	Philadelphia City Planning Commission	Short-Range Planning	\$119,758	\$29,940	\$149,698
21-63-008 ¹	DVRPC	Southeastern Pennsylvania Transit Planning and Technical Assistance - Philadelphia Transit Plan	\$144,000	\$36,000	\$180,000
Subtotal			\$635,000	\$158,750	\$793,750
Special Studies					
Project Number	Agency	Project	FY 2021 Budget		
			Cash	Match	Total
21-63-009 ²	SEPTA/DVRPC	SEPTA Technical Assistance - Trolley Modernization Operations and Design Support	\$100,000	\$25,000	\$125,000
21-63-007 ²	SEPTA/DVRPC/Chester County	Phoenixville Passenger Rail-Ridership Forecast	\$100,000	\$25,000	\$125,000
21-63-010 ²	DVRPC	Rolling License Plate Surveys (PA)	\$65,000	\$16,250	\$81,250
Subtotal			\$265,000	\$66,250	\$331,250
Program Total			\$900,000	\$225,000	\$1,125,000

- Project work will be performed by DVRPC staff to support work on the Philadelphia Transit Plan – Technical Analysis. Match (\$18,000) will be evenly split and added to the OTIS and PCPC core agreements and will be reflected in the contracts.
- Project work will be performed by DVRPC staff. Match (\$11,042) will be added to all PA core agreements and will be reflected in the contracts.

PROJECT: 21-63-001 Bucks County Transit Planning and Programming

Responsible Agency: Bucks County Planning Commission

Program Coordinator: Amy Bernknopf, Kwan Hui

Goals:

To improve the efficiency of the region's transportation network by carrying out a comprehensive local transit planning program.

Description:

Examine the need for public transportation services, specifically in areas of rapid traffic volume increases and escalating traffic congestion. Advocate and coordinate the implementation of activities and services that support public transit usage and help improve suburban mobility.

Rapid development and minimal public transportation services have led to an overburdened highway network in Bucks County. The county's geographic location between the New Jersey to New York corridor to the east, Philadelphia to the south, and the Allentown-Bethlehem-Easton areas to the north guarantees that development pressures will continue. Bucks County's comprehensive plan aims to guide and coordinate development to minimize its adverse impacts.

This project will allow staff to examine opportunities to minimize traffic impacts and enhance suburban mobility through an expanded public transportation system. Public transportation objectives will be pursued through coordination with local governments, the business community, and area service providers.

Tasks:

Task 1: Administration

1. Program administration and inter-agency coordination to include general program correspondence and public information requests.

Task 2: Planning and Programming

1. Assist the business community in identifying unique transportation needs and provide information as to public transportation alternatives.

2. Review existing and proposed development to identify areas capable of supporting public transportation services or areas in particular need of expanded transit services.

3. Review county and municipal growth management policies to ensure that access to public transportation services are included where feasible.

4. Review existing paratransit services for evaluation and compliance with ADA Requirements.

Task 3: Coordination

1. Maintain liaison with the Bucks County Transportation Management Association.

Products:

- 1. Monthly and quarterly progress reports.
- 2. Quarterly invoices.
- 3. Expanded and/or modified transit service proposals.
- 4. Recommendations for improving transit services throughout the county.
- 5. Proposed TSP Work Program for next fiscal year.

Beneficiaries:

Operating agencies and utilities; economic development agencies; private sector; and municipalities.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$79,311		\$61,734		\$17,577
2021	\$88,210		\$61,734		\$26,476
2022					
2023					

*\$26,476 Match (\$15,434 for 21-63-001, \$11,042 for special studies projects)

PROJECT: 21-63-002 Chester County Transit Planning and Coordination

Responsible Agency: Chester County Planning Commission

Program Coordinator: Amy Bernknopf, Kwan Hui

Goals:

To improve the efficiency of the region's transportation network by carrying out a comprehensive local transit planning program.

Description:

The purpose of this project is to provide comprehensive planning, programming, monitoring, and coordination of transit services in Chester County. It provides for staff support to respond to requests for technical and policy assistance on regional public transportation issues and projects. It enables staff to coordinate with PennDOT, SEPTA, TMACC, GVFTMA, Amtrak, and other public transit service providers and stakeholders.

Tasks:

Task 1: Administration

1. Prepare quarterly progress reports and invoices.
2. Participate in DVRPC's Annual Planning Work Program development.
3. Perform general administration and respond to information requests.

Task 2: Planning and Programming

1. Monitor existing transit services and evaluate the need and potential for new public transportation services. Participate in various transportation study advisory committees related to public transit.
2. Participate in developing and amending the Transportation Improvement Program (TIP).
3. Review and provide input to SEPTA's capital budget, operating budget, and annual service plan. Monitor service changes and capital projects.
4. Monitor transportation funding programs and opportunities.

Task 3: Coordination

1. Participate in meetings of regional or multi-county interest to discuss issues related to public transportation services or policies. Coordinate with DVRPC, SEPTA, Amtrak, PennDOT, TMACC, and other organizations that plan or provide transit and paratransit services.
2. Provide technical assistance and policy input to the county commissioners and SEPTA board members.
3. Participate in meetings and activities of the TMA of Chester County and Greater Valley Forge TMA.

Products:

- 1. Quarterly progress reports and invoices.
- 2. Proposed TSP Work Program for next fiscal year.

Beneficiaries:

State, county, municipalities, transit operating agencies, the private sector, and Chester County residents and employees.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$59,729		\$46,069		\$13,660
2021	\$68,628		\$46,069		\$22,559
2022					
2023					

*\$22,559 Match (\$11,517 for 21-63-002, \$11,042 for special studies projects)

PROJECT: 21-63-003 Delaware County Transit Planning and Coordination

Responsible Agency: Delaware County Planning Department

Program Coordinator: Amy Bernknopf, Kwan Hui

Goals:

To improve the efficiency of the region's transportation network by carrying out a comprehensive local transit planning program.

Description:

This project will enhance the mobility of the residents of Delaware County by providing comprehensive planning, programming, monitoring, and coordination of transit services in the county.

Tasks:

1. Administer project and prepare required invoices, progress reports, and completion reports.
2. Continue to build and maintain a transit database/needs improvement inventory.
3. Monitor transit service through performance analysis and service improvement requests.
4. Provide input to SEPTA operating budgets and determine impacts on fares, subsidies, and levels of service.
5. Provide input to SEPTA and PennDOT capital budgets and monitor capital projects and subsidies.
6. Promote transit initiatives through marketing strategies, service planning, and travel demand management.
7. Prepare public transit components of County Comprehensive Plan and municipal comprehensive plans.
8. Review land development proposals and provide recommendations for improved public transit access.
9. Plan and coordinate paratransit services.
10. Maintain liaison with SEPTA, PennDOT, Community Transit, The Delaware County TMA, and private providers.
11. Management of County Employee Transportation Programs: develop a strategy for how the DCPD Transportation Planning staff could manage County employee transportation programs for employees working in Media, including streamlining the RideECO enrollment process and providing relevant transit information through transit fairs, new employee packets, etc.

Products:

1. Quarterly progress reports
2. Quarterly invoices
3. Closing report
4. TSP Work Program for next fiscal year
5. Strategy for how the DCPD Transportation Planning staff could manage County

employee transportation programs for employees working in Media

Beneficiaries:

Member governments, operating agencies, the private sector, and citizens.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$141,523		\$87,504		\$54,019
2021	\$120,422		\$87,504		\$32,918
2022					
2023					

*\$32,918 Match (\$21,876 for 21-63-003, \$11,042 for special studies projects)

PROJECT: 21-63-004 Montgomery County Transit Planning and Implementation

Responsible Agency: Montgomery County Planning Commission

Program Coordinator: Amy Bernknopf, Kwan Hui

Goals:

To improve the efficiency of the region's transportation network by carrying out a comprehensive local transit planning program.

Description:

The purpose of this project is to partially fund staff participation in transit planning with SEPTA, DVRPC, and Pottstown Area Rapid Transit (PART). It will fund planning activities dealing with route and service modifications, new route planning, capital and operating budget review, policy development, and data gathering and analysis.

Tasks:

Task 1: Administration

1. Prepare TSP submittal and participate in DVRPC's annual Planning Work Program development.
2. Prepare quarterly progress and financial reports and general correspondence and respond to public information requests.

Task 2: Planning and Programming

1. Provide policy analysis and liaison with county commissioners and SEPTA board Members.
2. Review new or modified transit service proposals and review subdivision and land development plans for transit access.
3. Enforce the county comprehensive plan, and WalkMontco and BikeMonto plans.

Task 3: Coordination

1. Participate in the activities of the Greater Valley Forge and The Partnership TMAs.
2. Provide inter-agency coordination with DVRPC, SEPTA and PART.
3. Participate in various transportation study task forces.
4. Participate in the development of new transit services.
5. Establish and communicate the county's capital priorities for SEPTA and PART.
6. Participate in the development of the Transportation Improvement Program.
7. Review SEPTA and PART operating and capital budgets.
8. Organize and lead meetings among departments to implement the county's Complete Streets policy.

Products:

1. Monthly progress and financial reports.
2. Route and service plans.
3. County transportation plan update.

- 4. TSP Work Program for inclusion in next year's DVRPC Planning Work Program.
- 5. County project proposals for annual UPWP.

Beneficiaries:

Operating agencies, the private sector, county, and municipalities.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$98,893		\$77,400		\$21,493
2021	\$107,792		\$77,400		\$30,392
2022					
2023					

*\$30,392 Match (\$19,350 for 21-63-004, \$11,042 for special studies projects)

PROJECT: 21-63-005 Philadelphia Transit Planning and Programming

Responsible Agency: Office of Transportation and Infrastructure Systems

Program Coordinator: Amy Bernknopf, Kwan Hui

Goals:

To improve the efficiency of the region's transportation network by carrying out a comprehensive local transit planning program.

Description:

The major purpose of this program is to reimburse the Philadelphia Office of Transportation, Infrastructure, and Sustainability (OTIS) for expenses incurred as a result of its input and participation in the regional transit planning and capital programming processes.

Tasks:

Task 1: Administration

1. Participate in DVRPC's annual Planning Work Program development.
2. Prepare TSP quarterly progress and financial reports.

Task 2: Planning and Programming

1. Manage, analyze, develop, and evaluate the City of Philadelphia's short-range low-capital-intensive transportation projects that are under various stages of implementation, with emphasis on coordination with the city's neighborhood and commercial corridor improvement programs.
2. Prepare necessary inputs into the regional transportation plan and Transportation Improvement Program (TIP)
 - a. Assist in the development and coordination of city and regional transit plans.
 - b. Assist in planning for compliance with, and implementation of, strategies related to the Clean Air Act Amendments and the Americans with Disabilities Act.
 - c. Participate in the development of regional TSM planning.
 - d. Review and evaluate short-range transit plans.
 - e. Participate in the Commission's transit planning projects.
 - f. Participate in SEPTA's transit planning technical studies and projects such as route analysis and comprehensive bus network redesign.
 - g. Participate in transit planning studies sponsored by other agencies, such as the Delaware River Port Authority, New Jersey Transit, PennDOT, and the Center City Philadelphia TMA.
 - H. Participate in the development of a City of Philadelphia transit plan and subsequent planning work.
3. Make field trips to examine sites as required.
4. Identify and resolve issues requiring coordination with the Commission and member agencies.
5. Collect data for each city transit improvement project, including purpose, justification, physical description, status, and implementation schedule.

6. Prepare and review the City of Philadelphia's long-range Capital Budget and Program for transit projects.
7. Update and present to the Commission and member agencies the City's portion of the regional TIP updates and updates to the state Twelve Year Transit Capital Program.
8. Assist with local asset data collection, as requested.

Task 3: Coordination

1. Long-Range Transit Planning Process: Assist in updating and/or modifying the transportation elements of DVRPC's Long- Range Plan Update.
2. Attend transportation-planning-related meetings and conferences sponsored by FTA, PennDOT, APTA, TRB, PTI, NACTO, IMPACTS, or other transportation organizations.
3. TIP Coordination and Development:
 - a. Review and analyze the current regional TIP, including the status of the current budget year and the two- to six-year program of the City of Philadelphia's Transportation Capital Budget and Program.
 - b. Coordinate the TIP's progress and status with the Commission and member agencies.
4. Review and analyze the draft regional TIP in light of the Long-Range Plan.
5. Prioritize and stage the elements of the TIP within fiscal funding constraints.
6. Make suggestions to improve and revise the city's and SEPTA's Transit Capital budgeting process.
7. Participate in the preparation and coordination of city submissions for Transportation Enhancements, CMAQ, TCDI, and TCSP funding.
8. Provide assistance to the Commission's staff in analyzing the City of Philadelphia's TIP projects and implementation thereof.

Products:

1. Transit Capital Project element of the city's long-range Capital Budget and Program
2. TSP Work Program for inclusion in next fiscal year's DVRPC Planning Work Program.
3. Updated regional TIP.

Beneficiaries:

City of Philadelphia, Pennsylvania, SEPTA, PATCO, and NJ Transit.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$137,311		\$98,535		\$38,776
2021	\$152,210		\$98,535		\$53,675
2022					
2023					

*\$53,675 Match (\$24,633 for 21-63-005, \$18,000 for 21-63-008, \$11,042 for special studies projects)

PROJECT: 21-63-006 Philadelphia Short-Range Planning

Responsible Agency: Philadelphia City Planning Commission

Program Coordinator: Amy Bernknopf, Kwan Hui

Goals:

To support the Philadelphia City Planning Commission's (PCPC) transportation planning and programming efforts at both city and regional levels, and to develop recommendations on specific issues, as needed.

Description:

The City of Philadelphia's Home Rule Charter requires that the City Planning Commission prepare an annual Capital Program and Budget. This work also provides input into the development of the regional TIP. Support is needed for the proper analysis, ranking, and determination of cross-functional priorities of the projects submitted for review, as well as for continued capital program maintenance. The City Planning Commission is also required by the Charter to prepare and maintain a Comprehensive Plan for the City. Staff supports the integration of inter-departmental transportation needs and priorities into the citywide and district-level stages of this work. Support is also needed for analyses of proposed developments, as well as the development of transportation improvement proposals for immediate implementation. This project will also include participation in the regional planning process.

Tasks:

Task 1: Administration

1. Develop, prepare, and submit quarterly invoices and progress reports for TSP.
2. Participate in DVRPC's annual Planning Work Program development.

Task 2: Planning and Programming

1. Evaluate requested transportation projects and make recommendations about their inclusion and level of funding in the city's Capital Budget and Program and regional Transportation Improvement Program (TIP).
2. Develop supporting data, tables, and text for the Capital Program and contribute to Capital Program maintenance, including the evaluation and processing of Modifications and Amendments.
3. Review and make recommendations regarding studies and plans for transportation capital projects.
4. Work with the CONNECT: Transit First Subcommittee in its efforts to improve the effective operation of surface transit.
5. Continue non-motorized transportation planning activities, including updates to the Pedestrian & Bicycle Plan and Trail Master Plan, particularly as they relate to transit access.
6. Evaluate proposed development projects for potential impacts on transportation systems, through Complete Streets Reviews for Civic Design Review cases.
7. Data collection and technical analysis for existing internal multimodal projects.
8. Assist with providing existing local asset data collection, as appropriate.

9. Evaluate transportation related projects for consistency with the city’s comprehensive plan and provide letters of plan compliance for grant funded projects.

Task 3: Coordination

1. Participate in the development and maintenance of the transportation elements of the city’s comprehensive plan and district plans.
2. Provide City Planning Commission input to DVRPC’s transportation planning projects, including the maintenance of the Long-Range Plan.
3. Attend transportation-planning-related meetings and conferences sponsored by organizations such as PennDOT, FTA, NACTO, and TRB.
4. Review plans and participate in planning efforts of other agencies, including SEPTA, the Streets Department, OTIS, PennDOT, PATCO, the Central Philadelphia TMA, and University City TMA.
5. Participate in the Regional Technical Committee of DVRPC and the SEPTA city-county meetings.
6. Participate in the development and maintenance of the regional Transportation Improvement Program.

Products:

1. Recommended Capital Budget and Program.
2. Final Capital Program Report.
3. Memos and reports on individual transportation issues.
4. TSP Work Program for inclusion in subsequent year DVRPC Planning Work Program.
5. Updated regional TIP.
6. SEPTA Comprehensive Bus Network Redesign

Beneficiaries:

General Public/Citizens, DVRPC, and SEPTA

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$163,841		\$119,758		\$44,083
2021	\$178,740		\$119,758		\$58,982
2022					
2023					

*\$58,982 Match (\$29,940 for 21-63-006, \$18,000 for 21-63-008, \$11,042 for special studies projects)

PROJECT: 21-63-007 Phoenixville Passenger Rail Ridership Forecasts

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Matthew Gates

Project Manager: Amy Bernknopf, Kwan Hui

Goals:

Enhance regional mobility, economic growth, and sustainability by exploring the transit ridership potential of a SEPTA Regional Rail extension from Norristown to Phoenixville in Pennsylvania.

Description:

A grassroots effort led by local developer, the DeMutis Group seeks to restore passenger commuter rail service to the Borough of Phoenixville. The DeMutis group is working with Phoenixville Borough's Mayor's Task Force for the Restoration of Rail Service to Phoenixville, and their vision is to restore this service as an extension of the Manayunk/Norristown line and sharing the Norfolk Southern freight corridor to the Borough of Phoenixville.

The group is currently working on the development of a value capture plan of soon to be developed properties in conjunction with federal grants and loans to finance this service extension, and will not be seeking FTA New Starts funding. The group has met with each of the impacted municipalities and counties and has received conceptual support for the extension and has also coordinated with SEPTA and the Norfolk Southern Corporation regarding costs and other requirements necessary to move this project forward.

The potential ridership figures for this project have been developed by modifying the forecast that was developed for the Schuylkill Valley Metro project, now nearly 20 years old. This would provide updated ridership forecast given the current concept of three new station sites (Phoenixville, Schuylkill Township, and King of Prussia) and a service schedule of 60 round trips per week to be operated by SEPTA, as outlined in the group's current working study.

Tasks:

1. Assemble steering committee comprised of SEPTA, Chester County, Montgomery County, TMAs, and PennDOT.
2. Review previous planning work, including forecasts.
3. Review and agree on planning assumptions, including station locations, service schedule, running times, park and ride size and locations, fare structure, and demographics. It is anticipated that this task will rely heavily on the previous study and use many of the same service assumptions.
4. Assemble data for model calibration, including recent ridership and park and ride counts; flow data from the on-board survey, household travel survey, and CTPP;

- demographic data; and travel times.
5. Calibrate TIM 2.3 model to a suitable degree for a systems planning exercise.
 6. Prepare anticipated opening year and horizon ridership forecasts.
 7. Document study findings.

Products:

1. Ridership forecasts
2. Technical memorandum

Beneficiaries:

Chester County, Montgomery County, SEPTA, and the DVRPC region.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020					
2021	\$100,000		\$100,000		
2022					
2023					

**PROJECT: 21-63-008 Southeastern Pennsylvania Transit Planning and
Technical Assistance - Philadelphia Transit Plan**

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Betsy Mastaglio

Project Manager: Amy Bernknopf, Kwan Hui, Reuben MacMartin

Goals:

Support transit planning, design, and analysis work for transit agencies and member governments in Southeastern Pennsylvania.

Description:

Work conducted under this program will help to implement the planning goals and policies of Connections 2045, the region's adopted Long Range Plan, while assisting southeastern Pennsylvania public transit agencies in the implementation of their planning and project agendas. Work under this program may include tasks or projects in their entirety, and may also supplement transit planning work by DVRPC staff for projects funded under other programs.

Project tasks may include existing conditions analysis, identification of potential transit improvements through conceptual design or evaluations of multimodal access improvements, as well as feasibility studies and ridership forecast modeling. DVRPC will take advantage of skills and expertise from across the agency in a collaborative effort to best meet the needs of the project sponsor and to further the goal of establishing an increasingly-multimodal transportation system for Southeastern Pennsylvania. Completion of work undertaken through this program may require the purchase of equipment or services.

Tasks:

1. Continue to provide technical analysis in support of a new transit plan for the City of Philadelphia. This project will involve collaborating closely with City of Philadelphia staff (OTIS and PCPC) to support Phase II of the advancement of their Connect: Philadelphia's Strategic Transportation Plan. Development of the new transit plan is expected to coincide with SEPTA's upcoming Comprehensive Bus Network Redesign (CBNR) program. This plan will evaluate and prioritize street-level improvements to transit performance in priority corridors. Staff will provide technical support to the City and SEPTA through Transit First analysis such as: mapping transit dependent communities, making recommendations and ranking priorities for service improvements and street changes, and considering transit capacity increases that may be achieved through recommended treatments. Work will be conducted collaboratively and in support of various other City Transit Plan efforts.

Products:

1. Planning/policy documents, datasets, maps, technical reports, white papers, and/or memorandums with findings and recommendations, as appropriate.

Beneficiaries:

Pennsylvania member governments, SEPTA, and the transit-riding public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$144,000		\$144,000		
2021	\$144,000		\$144,000		
2022					
2023					

PROJECT: 21-63-009 SEPTA Technical Assistance - Trolley Modernization Operations and Design Support

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Betsy Mastaglio

Project Manager: Amy Bernknopf, Kwan Hui, Logan Axelson

Goals:

Support planning efforts for SEPTA's Trolley Modernization program.

Description:

SEPTA's trolley system serves approximately 80,000 passengers per day on eight routes in Philadelphia and Delaware County. In the coming years, SEPTA will completely replace its aging trolley fleet with modern, accessible vehicles—a program that will have multifaceted impacts on the trolley system and the communities it serves. Trolley Modernization brings opportunities for improved, accessible stations, faster travel times for passengers, operational efficiencies for SEPTA, and opportunities to improve or expand existing trolley routes as part of this major investment.

Since 2014, DVRPC has partnered with SEPTA to provide planning support for Trolley Modernization, including conceptual station design (Modern Trolley Station Design Guide: City Transit Division, and Modern Trolley Station Design Guide: Suburban Transit Division), operations analysis (Analysis of Modernization Scenarios for SEPTA Route 34, and Route 15 Trolley Modernization), and evaluations of potential trolley system expansions (Concept Development for Transit on Delaware Avenue, Centennial District Trolley Service Concept Evaluation, and Eastwick Intermodal Center.)

This project continues this support for ongoing Trolley Modernization projects in three categories: operational analysis, station area planning, and partnership projects.

Operational Analysis: SEPTA routes 101 and 102 run between 69th Street Transportation Center and Media and Sharon Hill, respectively, mostly through densely settled suburbs with a strong ridership base. SEPTA is interested in understanding the potential to increase service frequency on these routes, given existing infrastructure constraints. DVRPC will assist with SEPTA-led operations analyses to evaluate potentially double-tracking sections of these routes, new lay-by areas, and station consolidation, among other topics.

Station Area Planning: Stations on routes 101 and 102 are typically spaced farther from each other, and set in locations with less bicycle and pedestrian infrastructure than in the City of Philadelphia. In collaboration with Delaware County and

municipal stakeholders, DVRPC will support SEPTA in identifying critical improvements for multimodal access to stations and local station area planning on routes 101 and 102.

Partnership Projects: DVRPC will support SEPTA as it continues its outreach to stakeholders along its trolley routes by developing graphics and attending meetings.

Tasks:

1. Project Management: DVRPC will be responsible for communication and coordination with SEPTA Strategic Planning and Analysis staff to organize project updates as necessary. DVRPC will work with SEPTA staff to organize stakeholder workshops for station area planning as necessary.
2. Operational Analysis: DVRPC will assist with operational simulations on routes 101 and 102 to evaluate potential for double-tracking sections, new switches, new lay-by areas, station consolidation and/or similarly related analysis. Operational scenarios will be developed in partnership with SEPTA and/or its consultants.
3. Station Area Planning: DVRPC will identify critical improvements for multimodal, ADA-compliant access to stations on SEPTA routes 101 and 102.
 - a. With SEPTA staff, DVRPC will hold workshops to discuss station and station area improvements with local stakeholders.
 - b. DVRPC will recommend strategies to improve pedestrian and bicycle access to stations on routes 101 and 102, which may include documentation of existing constraints, prioritization of local infrastructure improvements, and/or conceptual designs.
4. Partnership Projects: DVRPC staff will participate in stakeholder meetings and develop graphics as necessary to support SEPTA's outreach to Trolley Modernization stakeholders.

Products:

1. A memo summarizing the results of the Route 101/102 Operational Analysis.
2. A memo recommending pedestrian and bicycle access strategies for Route 101/102 stations.
3. Graphics and outreach materials as necessary.

Beneficiaries:

SEPTA, Philadelphia, Delaware County

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$120,000		\$120,000		
2021	\$100,000		\$100,000		
2022					
2023					

PROJECT: 21-63-010 Rolling License Plate Surveys (Pennsylvania)

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Amy Bernknopf

Project Manager: Betsy Mastaglio, Kwan Hui, Thomas Stead

Goals:

To understand rider park-and-ride origins at SEPTA stations for planning purposes.

Description:

In partnership with SEPTA and PennDOT, DVRPC has a program to assess rail station market areas by surveying license plates of the vehicles that are parked at each station and mapping the addresses that are associated with those plates. By exploring the distribution of mapped records, DVRPC can get a sense of where a given station's highest concentrations of park-and-ride customers are located, as well as typical drive-access distances.

This ongoing program will identify rider origins for the current total of 152 SEPTA rail stations that have commuter parking. The resulting station catchment area information, from which personally identifiable information is removed, provides clear and accurate data used to support planning functions by SEPTA, suburban counties, the City of Philadelphia, and local municipalities for changes in marketing, route operations, and capital planning (such as expansion of parking and station facilities).

Approximately 30 stations will be analyzed (one fifth of all stations with parking) during each fiscal year, so that no station will have data older than five years.

Prior to this project getting underway, SEPTA, PA suburban counties, and City of Philadelphia staff will be given an opportunity to propose, review, and confirm locations that are their priorities for data collection and analysis this year. Some of these activities may also require DVRPC to purchase equipment or services to meet program goals.

Tasks:

1. Collect, review, and confirm license plate survey locations with SEPTA, PA suburban counties, and City of Philadelphia staff.
2. Perform license plate surveys for approximately 30 rail stations, enter data, and geocode resulting origin patterns for each selected station.
3. Add collected data to license plate survey database and update online mapping tool.
4. Send full point datasets to each participating partner.

Products:

1. Datasets that will be shared online (aggregated to a geographic area) as well as with project partners.

Beneficiaries:

Bucks County, Chester County, Delaware County, Montgomery County, City of Philadelphia, SEPTA, Pennsylvania transportation management associations (TMAs), existing and new SEPTA customers.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$60,000		\$60,000		
2021	\$65,000		\$65,000		
2022					
2023					



PHOTO BY DAVID ANDERSON

CHAPTER 4B

NJ Transit Support Program *(TSP)*

JUNE 2020

DELAWARE VALLEY
dvrpc
REGIONAL
PLANNING COMMISSION

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Delaware Valley Regional Planning Commission
 Fiscal Year 2021 | Unified Planning Work Program

Table 9: NJ Transit Support Program

Core Projects					
Project Number	Agency	Project	FY 2021 Budget		
			Cash	Match	Total
21-63-020	Burlington County	Transit & Ridesharing	\$37,392	\$9,348	\$46,740
21-63-021	Camden County	Transit Planning & Programming	\$41,500	\$10,375	\$51,875
21-63-022	Gloucester County	Transportation Systems Planning	\$38,680	\$9,670	\$48,350
21-63-023	Mercer County	Transit Planning & Programming	\$33,284	\$8,321	\$41,605
21-63-025	Camden City	Transit Planning Program	\$20,800	\$5,200	\$26,000
Subtotal			\$171,656	\$42,914	\$214,570
Special Studies					
Project Number	Agency	Project	FY 2021 Budget		
			Cash	Match	Total
21-63-024 ¹	DVRPC	NJ Transit Technical Assistance - Mercer County Bus Forecasts	\$135,944	\$33,986	\$169,930
21-63-026 ¹	NJTRANSIT/DVRPC	NJTRANSIT: Transit Survey Program	\$55,000	\$13,750	\$68,750
21-63-027 ¹	NJ Regional/DVRPC	Rolling License Plate Surveys (NJ)	\$24,000	\$6,000	\$30,000
Subtotal			\$214,944	\$53,736	\$268,680
Program Total			\$386,600	\$96,650	\$483,250

1. Project work will be performed by DVRPC staff. Match (\$10,747) will be added to all NJ Core agreements and will be reflected in the contract.

PROJECT: 21-63-020 Burlington County Transit and Ridesharing

Responsible Agency: Burlington County - Land Development

Program Coordinator: Amy Bernknopf, Kwan Hui

Goals:

Carry out a comprehensive local transit planning program to improve the efficiency of the region's transportation network.

Description:

Identify, provide, promote, and maintain transit and ridesharing opportunities within Burlington County by encouraging patterns that link use with transit. Work with NJ Transit, NJDOT, the Cross County Connection TMA, developers, large employers, and other agencies to promote and implement various types of transit and ridesharing. These may include, but are not limited to: transit buses, local buses, park and rides, and van or car pooling in areas of the county with severe congestion problems and little or no transit. Make recommendations to NJ Transit, employers, and developers for new services

Tasks:

Task 1: Administration

1. Participate in DVRPC's annual Planning Work Program development.
2. Prepare TSP quarterly progress and financial reports.

Task 2: Planning and Programming

1. Assist NJ Transit in efforts to establish legal bus stops and install shelters throughout the county.
2. Make recommendations to NJ Transit on sites and corridors with potential transit ridership.
3. Work with large employers, developers, municipalities, the county government, and CCCTMA to develop and encourage alternatives to the single occupancy vehicle.
4. Work with municipalities, county government, and other appropriate agencies to review, evaluate, and implement transportation control measures appropriate for the county and the region in response to the Clean Air Act Amendments of 1990.
5. Review municipal master plans to ensure that transit services are considered and are compatible with the regional transportation system.
6. Implement the transit portion of the Burlington County Transportation Master Plan.
7. Serve on the executive committee of the CCCTMA.

Task 3: Coordination

1. Coordinate programs with local, county, state, and regional agencies.
2. Draft regulations and sample ordinances that would implement TCMs at county and municipal levels.
3. Coordinate with the operators of light rail transit in Burlington County.

Products:

- 1. Quarterly progress reports.
- 2. Approved legal bus stop and shelter locations.
- 3. Recommendations and implementation of improvements in the moving of people within the transportation system, including preparation of the final report.
- 4. Transit section of Burlington County Transportation Master Plan.
- 5. TSP Work Program for subsequent fiscal year.

Beneficiaries:

Burlington County, local governments, private citizens, developers, transportation engineers, and NJDOT.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$59,907		\$37,392		\$22,515
2021	\$57,487		\$37,392		\$20,095
2022					
2023					

*\$20,095 Match (\$9,348 for 21-63-020, \$10,747 for special studies projects)

PROJECT: 21-63-021 Camden County: Transit Planning and Programming

Responsible Agency: Camden County - Department of Public Works - Division of Planning

Program Coordinator: Amy Bernknopf, Kwan Hui

Goals:

To improve the efficiency of the region's transportation network by carrying out a comprehensive local transit planning program.

Description:

Maintain current local and regional transportation activities and provide the means to develop future public transportation plans that meet changing local and regional transportation needs. Do research and prepare reports on public transportation matters as required, etc. Coordinate with Cross County Connection TMA, other counties and state agencies. Serve on various corridor study task forces.

Tasks:

Task 1: Administration

1. Administer the project, which includes submission of a progress report, final billing and report.

Task 2: Planning and Programming

1. Keep abreast of NJ Transit service within the county.
2. Assist communities in identifying their transportation needs and provide information as to their transportation alternatives through participation in TMA activities.
3. Provide technical assistance and program coordination with local, regional, and New Jersey state agencies.
4. Participate in transportation planning meetings and conferences.
5. Develop and maintain GIS to include the development and update of asset management data on county roadways.

Task 3: Coordination

1. Coordinate planning activities with various county and state agencies.
2. Provide technical support to the CMAQ Subcommittee of the DVRPC RTC.
3. Develop the Camden County Work Program for inclusion in the DVRPC Unified Planning Work Program.
4. Respond to public information requests.

Products:

1. TOD GIS data and reports.
2. Progress reports and final report.
3. Work Programs for DVRPC UPWP.

Beneficiaries:

Citizens, private sector, and operating agencies.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$52,542		\$41,500		\$11,042
2021	\$62,622		\$41,500		\$21,122
2022					
2023					

*\$21,122 Match (\$10,375 for 21-63-021, \$10,747 for special studies projects)

PROJECT: 21-63-022 Gloucester County Transportation Systems Planning & Implementation

Responsible Agency: Gloucester County Planning Department

Program Coordinator: Amy Bernknopf, Kwan Hui

Goals:

Improve the efficiency of the region’s transportation network by carrying out a comprehensive local transit planning program.

Description:

Improve the efficiency of the region’s public transportation network by carrying out a comprehensive local transit planning program to maintain current local and regional public transportation activities and to provide the means to develop future public transportation plans that meet changing local and regional needs. Serve on steering committees and the Local Citizens Transportation Advisory Committee. Conduct research and prepare reports on public transportation matters as required. Attend meetings, seminars, and public hearings related to public transportation.

Tasks:

Task 1: Administration

1. Administer project, which will include submission of quarterly progress reports, quarterly invoices, and final report.

Task 2: Planning and Programming

1. Monitor NJ Transit service within the county, perform detailed analysis, and submit recommendations to NJ Transit.
2. Continue regional marketing and marketing activities.
3. Provide technical assistance and program coordination with regional, state and local agencies.

Task 3: Coordination

1. Participate in transportation meetings, and conferences.
2. Respond to public information requests.
3. Assist NJDOT, NJ Transit, and DVRPC in the investigation of potential transportation improvements.
4. Assist the business community in identifying their transportation needs and provide information as to their transportation alternatives.

Products:

1. Service improvement recommendations.
2. Quarterly reports and billings and final report.
3. TSP Work Program for next fiscal year's DVRPC Planning Work Program.

Beneficiaries:

Gloucester County, municipalities, the private sector, and citizens.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$49,017		\$38,680		\$10,337
2021	\$59,097		\$38,680		\$20,417
2022					
2023					

*\$20,417 Match (\$9,670 for 21-63-022, \$10,747 for special studies projects)

PROJECT: 21-63-023 Mercer County Transit Planning and Programming

Responsible Agency: Mercer County Planning

Program Coordinator: Amy Bernknopf, Kwan Hui

Goals:

Carry out a comprehensive local transit planning program to improve the efficiency of the region's transportation network.

Description:

Identify, provide, promote and maintain transit and ridesharing opportunities within Mercer County by encouraging patterns that link use with transit. Work with NJ Transit, NJDOT, the Greater Mercer TMA, developers, large employers and other agencies to promote and implement various types of transit and ridesharing. These may include, but are not limited to: transit buses, local buses, park and rides, and van or car pooling in areas of the county with severe congestion problems and little or no transit. Make recommendations to NJ Transit, employers, and developers for new services including light rail where possible.

Tasks:

Task 1: Administration

1. Attend DVRPC Board and Regional Technical Committee (RTC) meetings, RTC Subcommittee meetings, and other meetings with federal, state, regional, and local transportation agencies.
2. Prepare TSP quarterly progress and financial reports.
3. Perform general administrative duties, including liaison and interagency coordination.
4. Review transportation reports and correspondence and provide responses.
5. Respond to information requests, including those from the public.
6. Perform public participation as appropriate.

Task 2: Planning and Programming

1. Assist NJ Transit in efforts to establish legal bus stops and install shelters throughout the county.
2. Make recommendations to NJ Transit on sites and corridors with potential transit ridership.
3. Work with large employers, developers, municipalities, the county government, and GMTMA to develop and encourage alternatives to the single occupancy vehicle.
4. Work with municipalities, county government, and other appropriate agencies to review, evaluate, and implement transit specific transportation control measures appropriate for the county and the region in response to the Clean Air Act Amendments of 1990.
5. Ensure that transit services are considered and are compatible with the regional transportation system by reviewing municipal master plans and state, county, and/or

local roadway projects.

6. Work with municipalities, county government, and other appropriate agencies to plan for bicycle and pedestrian improvements that are along or within 5 miles of the existing transit network.

7. Participate in the development and maintenance of DVRPC’s annual Planning Work Program, NJ TIP, TIP Evaluation Criteria, and DVRPC LRP.

8. Participate in CMP project meetings as appropriate.

9. Assist DVRPC with license plate survey data collection at NJTransit park-and-ride lots.

Task 3: Coordination

1. Coordinate programs with local, county, state, and regional agencies.

2. Coordinate bi-annual CMAQ flex amounts for county paratransit services.

Products:

- 1. Quarterly progress reports and invoices.
- 2. Approved legal bus stop and shelter locations.
- 3. Recommendations and implementation of improvements in the moving of people within the transportation system including preparation of the final report.
- 4. TSP Work Program for inclusion in next year’s DVRPC Planning Work Program.

Beneficiaries:

Mercer County, Local Governments, Private Citizens, Developers, Transportation Engineers, NJ Transit and NJDOT.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$42,272		\$33,284		\$8,988
2021	\$52,352		\$33,284		\$19,068
2022					
2023					

*\$19,068 Match (\$8,321 for 21-63-023, \$10,747 for special studies projects)

PROJECT: 21-63-024 NJ Transit Technical Assistance - Mercer County Bus Forecasts

Responsible Agency: DVRPC

Program Coordinator: Betsy Mastaglio

Project Manager: Amy Bernknopf, Matthew Gates, Thomas Stead

Goals:

This project will help NJ Transit, Mercer County, and municipalities within the county advance transit opportunities toward short- to medium-term (within approx. 5 years) implementation.

Description:

This project funds DVRPC technical assistance capacity to assist NJ TRANSIT and member NJ counties with analysis required to support concept development and refinement for transit service improvement projects that may advance in the short to medium term. Efforts may include preparation of ridership forecasts, analysis and application of prior passenger survey data to understand travel markets, development of service routing concepts or operations refinements, analysis to support development of transit-preferential street changes or transit access improvements, and conducting stakeholder and community outreach. Specific concepts to be evaluated will be identified during the fiscal year. Work will primarily be summarized in memoranda that can be delivered quickly to support ongoing internal deliberation and evaluation of the most promising prospects.

During FY2021, work will focus on supporting NJ TRANSIT and Mercer County concept development for potential service changes in Mercer County. Several transit planning studies in recent years have identified potential need in Mercer County for transit service to a variety of destinations including DVRPC’s 2012 Future Bus Plan for Mercer County, NJ Transit’s 2006 Central New Jersey Bus Rapid Transit alternatives analysis, and the County’s frequently-updated Human Service Transportation Coordination Plan, supported by DVRPC’s Equity Through Access datasets. While these proposals for transit service have been made in Mercer County, NJ TRANSIT is considering several opportunities for improving and extending the reach of transit in the area.

Tasks:

1. Form a stakeholder group of NJ Transit and Mercer County representatives to review recent and expected development in the area, identify up to three (3) potential new transit routes, route changes, or significant extensions to existing services that would benefit from updated ridership forecasts, and review and provide input on project deliverables.
2. Quantify recent and expected new development in Mercer County and share with stakeholders.

- 3. Using DVRPC’s travel demand model, prepare ridership forecasts for up to three (3) potential transit service changes.
- 4. Summarize and share model outputs.

Products:

- 1. A memorandum summarizing the potential bus route and extension proposals and the results of the travel demand analysis.

Beneficiaries:

NJ Transit, Mercer County, and transit-riding public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$108,647		\$70,744		\$37,903
2021	\$135,944		\$135,944		
2022					
2023					

PROJECT: 21-63-025 City of Camden Transit Planning Program

Responsible Agency: City of Camden

Program Coordinator: Amy Bernknopf, Kwan Hui

Goals:

To improve efficiency of the region's public transportation network by carrying out a comprehensive local transit planning program.

Description:

This project will enhance the mobility of the residents of the City of Camden by providing comprehensive planning, programming, monitoring, and coordination of transit services in Camden.

Tasks:

Task 1: Administration:

1. Administer the project and prepare required invoices and progress reports.

Task 2: Planning and Programming

1. Monitor and provide input for NJ Transit and PATCO capital projects within the City of Camden.
2. Promote transit initiatives in the City of Camden as they pertain to residents, employees, employers, developers, and event spaces.
3. Evaluate upcoming land development and recommend measures to increase transit use.

Task 3: Coordination

1. Provide input into NJ Transit operating budgets and determine impacts on fares, subsidies, and levels of service.
2. Participate in activities of the Cross County Connection TMA.
3. Maintain liaison with NJ Transit, PATCO, NJDOT, and other transit service providers in the City of Camden.

Products:

1. Quarterly progress reports and invoices.
2. Closing report.
3. TSP Work Program for next fiscal year.

Beneficiaries:

New Jersey TMAs, NJDOT, and commuters in the DVRPC region in New Jersey.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$26,667		\$20,800		\$5,867
2021	\$36,747		\$20,800		\$15,947
2022					
2023					

*\$15,947 Match (\$5,200 for 21-63-025, \$10,747 for special studies projects)

PROJECT: 21-63-026 NJTRANSIT Survey Program

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Joshua Rocks

Project Manager: Matthew Gates

Goals:

This project is part of a continuing multi-year project performing ridership survey work on NJ Transit bus routes in order to update older surveys, assess and identify future issues or needs, and assist in meeting Title VI requirements.

Description:

The purpose of this project is to collect and analyze survey data on select NJ Transit bus and rail routes. This would provide data to update New Jersey Transit's previous on-board surveys, and would support identification of travel patterns, customer preferences, and operational issues or needs, and help meet Title VI requirements. The data will also be utilized by DVRPC staff in support of travel simulation modeling, calibration and other transit data inquires. DVRPC will work with NJ Transit to identify transit routes to be surveyed, but may include the following: 403, 404, 405, 407, 409, 413, 417, 418, 419. It is possible that this survey will need to be phased into the following year. DVRPC will work with NJ Transit to finalize route choice, to design both the sampling plan and the survey instrument, and survey agent schedules. Collected data will be processed and cleaned to ensure high data quality. This project may involve the purchase of goods and or services.

Tasks:

1. Complete any outstanding survey work that began in FY 2019.
2. Survey selected NJT transit routes.
3. Enter and aggregate the data in accordance with NJT guidance.
4. Conveyance of the finished data set to NJT in an agreed upon electronic format

Products:

1. Data-base of survey results.

Beneficiaries:

New Jersey Transit, municipalities, and commuters.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$78,200		\$78,200		
2021	\$55,000		\$55,000		
2022					
2023					

PROJECT: 21-63-027 Rolling License Plate Surveys (New Jersey)

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Amy Bernknopf

Project Manager: Betsy Mastaglio, Thomas Stead

Goals:

To understand rider park-and-ride origins at NJ TRANSIT and PATCO transit parking lots for planning purposes.

Description:

In partnership with NJ TRANSIT, DRPA, and NJDOT/DMV, DVRPC has a program to assess transit station market areas by surveying license plates of the vehicles that are parked at each station and mapping the addresses that are associated with those plates. By exploring the distribution of mapped records, DVRPC can get a sense of where a given station's highest concentrations of park-and-ride customers are located, as well as typical drive-access distances.

This ongoing program will identify rider origins for the current total of 34 transit stations that have commuter parking (approximately 7-8 stations annually). This data determines the geographic areas from which park-and-ride customers originate. Rider origins are obtained from license plates, address matched by NJDOT/DMV, and mapped. The resulting station catchment area information, from which personally identifiable information is removed, provides clear and accurate data used to support planning functions by NJ TRANSIT, suburban counties, and local municipalities for changes in marketing, route operations, and capital planning (expansion of parking and station facilities).

Approximately 7-8 stations will be analyzed (one fifth of all stations with parking) during each fiscal year, so that no station will have data older than five years.

Prior to this project getting underway, NJ TRANSIT, PATCO, and NJ counties' staff will be given an opportunity to review and confirm that the proposed locations are their priorities for data collection and analysis this year. Some of these activities may also require DVRPC to purchase equipment or services to meet program goals.

Tasks:

1. Collect, review, and confirm license plate survey locations with NJ TRANSIT, PATCO, and NJ Counties.
2. Perform license plate surveys for approximately 7-8 rail stations, enter data, and geocode resulting origin patterns for each selected station.
3. Add collected data to license plate survey database and update online mapping tool.
4. Send full point datasets to each participating partner.

Products:

Datasets that will be shared online (aggregated to a geographic area) as well as with the project partners.

Beneficiaries:

Camden County, Gloucester County, Mercer County, Burlington County, NJ TRANSIT, DRPA/PATCO, New Jersey transportation management associations (TMAs), existing and new NJ TRANSIT and DRPA/PATCO customers.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$16,000		\$16,000		
2021	\$24,000		\$24,000		
2022					
2023					



PHOTO BY AMY VERBOFSKY

CHAPTER 5

Other Member Government Projects

JUNE 2020

DELAWARE VALLEY
dvrpc
REGIONAL
PLANNING COMMISSION

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Chapter 5: Other Member Government Projects

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PROJECT: 21-53-300 PA/NJ Regional GIS Implementation Coordination

Responsible Agency: Delaware Valley Regional Planning Commission

Project Manager: William Stevens

Goals:

Ensure integrated and coordinated planning and promote information sharing through the continued development and maintenance of regional transportation GIS data.

Description:

This project enables the regional planning partners to expand their GIS capability as necessary to maintain a level of technical sophistication that guarantees interoperability and compatibility between NJDOT, PennDOT, DVRPC, and other member governments. A regional transportation database continues to be developed and enhanced by integrating data from both DOTs and member governments. Each planning partner will be asked to contribute transportation data as needed. Updates to this database and subsequent data sharing are critical to continued effective decision-making throughout the planning process. Completion of this project may require the purchase of equipment or services.

Tasks:

1. Attend meetings as needed and provide input as it relates to project direction and focus.
2. Submit quarterly progress reports, including updated budgets and receipts.
3. Acquire and maintain GIS hardware, software, and training as approved for use in the project.
4. Augment in-house staff as necessary to complete tasks.
5. Contribute existing transportation-related data as necessary.
6. Assist in development of new transportation-related data as required.
7. Ensure that all contributing data meets project standards.
8. Share methodologies related to effective and innovative use of transportation data to project participants as requested.

Products:

1. Quarterly progress reports.
2. Hardware, software, and training necessary for project participation.
3. Regional transportation-related data available to all project participants to support their GIS programs.

Beneficiaries:

State DOTs, member governments and operating agencies, and DVRPC.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$300,000				\$300,000
2021	\$300,000				\$300,000
2022	\$300,000				
2023	\$300,000				

* PA TIP - MPMS #48202 - \$150,000 STU/Toll Credit Match NJ TIP - DB
#X30A - \$150,000 STBGP-PHILA

PROJECT: 21-62-000 New Jersey Local Concept Development (2 Years)

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: John Coscia

Project Manager: John Coscia

Goals:

Improve the efficiency of the region's transportation network by providing federal funds to the New Jersey subregions to advance projects through New Jersey Local Concept Development.

Description:

The purpose of this program is to provide federal funds directly to member subregions for the advancement of projects through the Concept Development (CD) phase by consultant forces. The CD Phase involves drafting a well-defined and well-justified Purpose and Need Statement focusing on the primary transportation need to be addressed. CD Phase elements include, but are not limited to, data collection, coordination with New Jersey Department of Transportation (NJDOT) Subject Matter Experts/local stakeholders, risk identification, development of a reasonable number of sensible and practical conceptual alternatives and investigation of all aspects of a project. These aspects may include environmental, right of way, access, utilities, design, community involvement, and constructability.

The major objectives of the CD Phase are to identify and compare reasonable alternatives and strategies that address the Purpose and Need Statement and select a Preliminary Preferred Alternative.

The CD Phase will provide the information to determine whether or not the study can be advanced to the next phase of the Project Delivery Process and to procure a designer to take the potential project through PE, Final Design (FD) and Construction (CON). The CD Phase provides the framework for advancing the project into the PE phase. Considerable Coordination among parties requires a 3-year cycle for expenditure of these funds.

Current/New projects for Concept Development include:

1. Mill Street Bridge Rehabilitation/Replacement .
2. Iona Lake Bridge
3. Trenton Transit Center Circulation Improvements
4. City of Camden Traffic Signal Improvements
5. Parker's Creek Bridge
6. Additionally approved projects as needed.

Tasks:

- 1. Kickoff meetings.
- 2. Stakeholder Meetings.
- 3. Public meetings.
- 4. Perform data collection: traffic/crash data, management systems, utility identification, etc.
- 5. Complete Environmental Screening. Initiate early coordination with SHPO, if appropriate.
- 6. Perform analysis of collected data, review data, prepare collision diagram and other needed engineering analysis.
- 7. Perform HSM Analysis (when required)
- 8. Develop Conceptual Plans for Preliminary Preferred Alternative (PPA).
- 9. Confirm the environmental document that will be obtained in PE.
- 10. Develop Construction Cost Estimates of various alternatives.
- 11. Prepare CD Report.

Products:

- 1. Clearly defined Purpose and Need Statement for each project.
- 2. Concept Development Report for each project.

Beneficiaries:

Member and local governments and the traveling public.

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$430,000				\$430,000
2021	\$1,150,000				\$1,150,000
2022	\$1,150,000				
2023	\$1,150,000				

* NJ TIP - DB #X30A - \$1,150,000 STBGP-PHILA

PROJECT: 21-64-000 New Jersey Regional Signal Retiming Initiative Project (2 Years)

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Christopher King

Project Manager: Paul Carafides

Goals:

Reduce congestion and improve air quality by optimizing progression on signalized 500 and 600 routes in DVRPC's New Jersey counties.

Description:

Traffic signals play an important role in the transportation network, and county and local arterial roadways are increasingly being called upon to carry more users. FHWA estimates that many signals on these arterials could be improved by updating equipment or by simply adjusting and updating the timing plans. Outdated or poor traffic signal timing accounts for a significant portion of traffic delay on arterials and traffic signal retiming is one of the most cost effective ways to improve traffic flow and is one of the most basic strategies to help mitigate congestion, improve the mobility and safety of the street system, and contribute environmental benefits. This type of improvement also promotes an integrated corridor management approach, which looks at corridors as multimodal systems and makes operational decisions for the benefit of the corridors as a whole, regardless of who owns the signals.

The New Jersey Regional Signal Retiming Initiative Project will be used to make improvements to the transportation network by optimizing select traffic signal systems on signalized 500 and 600 routes in DVRPC's New Jersey counties. The chosen consultant will make improvements based on traffic data, observed conditions, and input from stakeholders. Implementation of the proposed timing plans is included with this project, but hardware upgrades are not. After implementation, signal system owner-operators will be responsible for maintaining the timing plan and implementing related physical improvements, if recommended.

Tasks:

1. Form project teams for selected corridors.
2. Perform data acquisition and analysis.
3. Develop proposed signal timing plans.
4. Perform "before" and "after" analyses.
5. Implement signal timing plans.
6. Project management.

Products:

- 1. MOU and Concept of Operations for each corridor
- 2. Proposed and final signal timing plans
- 3. Implementation of signal timing plans
- 4. A technical memorandum documenting the signal optimization analysis with appropriate recommendations

Beneficiaries:

Various Counties and Cities in New Jersey DVRPC Region, NJDOT, DVRPC, and motorists

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2020	\$350,000				\$350,000
2021	\$350,000				\$350,000

*NJ TIP DB #D1601 - \$350,000 CMAQ

PROJECT: 21-66/67-000 PA/NJ Transportation and Community Development Initiatives (2 Years)

Responsible Agency: Delaware Valley Regional Planning Commission

Program Coordinator: Karen Cilurso

Goals:

Implement Connections 2045 Plan for Greater Philadelphia by supporting early stage local government planning projects that advance the plan's five principles: Sustain the Environment, Develop Livable Communities, Expand the Economy, Advance Equity and Foster Diversity, and Create an Integrated, Multimodal Transportation Network. All projects must also enhance the region's multi-modal transportation infrastructure.

Description:

The Transportation and Community Development Initiative (TCDI) is a grant program that supports smart growth in the individual municipalities of the Delaware Valley through initiatives that implement the region's long range plan, Connections 2045 Plan for Greater Philadelphia. Central to the effort is the objective to enhance quality of life choices by providing and maintaining essential infrastructure, supporting local and regional economic development, and linking land use and transportation planning.

TCDI provides a mechanism for local governments and transit agencies to undertake locally-directed actions to improve their communities, which in turn implements their local county comprehensive plans and supports the goals and vision of the region's long-range plan. This grant program seeks to support and leverage state and county programs, by providing funding to undertake planning, analysis or early-stage design projects initiatives which improve the efficiency of the regional transportation system.

DVRPC will prepare, manage and implement a competitive program to provide funding to qualifying municipalities and transit agencies in Bucks, Chester, Delaware, Montgomery, Philadelphia, Burlington, Mercer, Camden and Gloucester counties. This Initiative is a 2-year effort that DVRPC facilitates every other year. Eligible activities include planning, analysis or early-stage design projects related to planning and growth management, reuse and revitalization, and transportation and infrastructure. DVRPC will conduct a solicitation for projects, coordinate a review committee to select project priorities, award funding based on a set of program guide criteria, assist with the procurement process for awardees, and monitor project progress. DVRPC's administrative work is covered in The Community and Economic Development Program Area (21-33-020), and this Initiative provides the funds for the competitively selected projects.

Tasks:

- 1. Award and administer contracts to projects as approved by the DVRPC Board. Recipients' administrative staff will manage contracting and invoicing, and DVRPC planning staff will act as project managers, overseeing the implementation of awards.
- 2. Develop detailed scope of work for each project as selected by DVRPC Board.
- 3. Review project products and provide payment based on completion of deliverable products and accounting of costs.
- 4. Monitor and evaluate project progress and report to TCDI Review Committee and Board regarding problems, successes, and lessons learned.

Products:

- 1. FY 21 Program Guidelines
- 2. Recommended list of projects selected for funding.
- 3. Project deliverables as defined by selected projects.
- 3. TCDI direct database for project management.

Beneficiaries:

Counties, municipalities, transit agencies, transportation professionals, community development professionals, and economic development agencies, private sector and public

Project Cost and Funding:

FY	Total	Highway Program	Transit Program	Comprehensive Planning	Other *
2019	\$2,250,000				\$2,250,000
2020	\$0				
2021	\$2,250,000				\$2,250,000

*New Jersey- NJ TIP DB #D0204 - \$600,000 STBGP, \$150,000 Local Match

Pennsylvania- PA TIP MPMS #64652 \$1,200,000 STU, \$300,000 Local Match



PHOTO BY ANDREW SVEKLA

CHAPTER 6

Continuing Projects

JUNE 2020

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Introduction

This chapter provides a summary of NJ TIP funded projects that span over multiple fiscal years due to the scope of work, consultant selection process, and extent of involvement required from various NJ member governments and municipalities. DVRPC staff continues to work with various stakeholders to provide administrative support including: competitive consultant selection, partner coordination and project management to ensure the project objectives are met timely and within budget. These multi-year projects consist of Local Concept Development (LCD) studies, NJ Regional Signal Retiming projects, Transportation and Community Development Initiatives (TCDI), and other planning studies. Table 10A: NJDDOT Initial No Cost Time Extension List and Table 10B: NJDOT Multi-Year Projects are provided below.

Table 10A: NJDOT Initial No Cost Time Extension List: These are continuing studies that were originally funded in FY 2020 or earlier, and will be carried over into FY 2021. Unlike ongoing staff activities that take place during each fiscal year, these projects are driven by consultant planning studies in collaboration with member government from New Jersey counties. Due to unforeseen delays, these projects require additional time beyond the original established expiration date to ensure adequate completion of the approved scope of work. Table 10A provides a summary of these projects including project number, project title, task order number, agreement number, funding amount, carryover estimate, current project end date and requested project end date.

Table 10A: NJDOT Initial No Cost Time Extension List*

Project Number	Project Title	Task Order Number	Agreement Number	Funding Amount	Carryover Estimate	Project End Date	Requested Project End Date
16-62-100	NJ Pavement Management	PL-DV-16-01	M23EC00S787	\$2,000,000	\$ 900,000	6/30/2020	6/30/2021
17-62-000	NJ Local Concept Development	PL-DV-17-01	Z230C00S938	430,000	100,000	6/30/2020	6/30/2021
18-62-000	NJ Local Concept Development	PL-DV-18-01	Z230C00S062	430,000	250,000	6/30/2020	6/30/2021
18-64-000	NJ Regional Signal Retiming Initiative	PL-DV-18-01	M400D00S072	350,000	150,000	6/30/2020	6/30/2021
19-52-120	NJ Regional Sidewalk Inventory	PL-DV-19-01	Z230D00S178	100,000	40,000	6/30/2020	6/30/2021

*Task orders from prior years that will continue into DVRPC's Fiscal Year 2021 (July 1, 2020-June 30, 2021).

Table 10B: NJDOT Multi-Year Projects: These projects are either initiated in the current Unified Planning Work Program (FY 2021 UPWP) or on-going projects that are expected to be carried over into FY 2021. Table 10B provides a listing of multi-year projects from FY 2021 UPWP, and projects that started in previous fiscal years that have continued into the Fiscal Year 2021. The listing contains fiscal year, project number, project title, funding amount, current project end date and requested project end date.

Note: To ensure Table 10B contains a comprehensive list of all NJ multi-year projects, continuing task orders on Table 10B contain carryover projects that are noted on the Table 10A: NJDOT No Cost Time Extension.

Table 10B: NJDOT Multi-Year Projects

FY 2021 UPWP

Fiscal Year	Project Number	Project Title	Funding Amount	Current Project End Date	Requested Project End Date
2021	21-62-000	New Jersey Local Concept Development (2 years)	\$ 1,150,000	6/30/2022	N/A
2021	21-64-000	New Jersey Signal Retiming (2 years)	350,000	6/30/2022	N/A
2021	21-66-000	PA/NJ Transportation and Community Development Initiatives (2 years)	750,000	6/30/2022	N/A

FY 2020 and Prior (Continuing Task Orders)

Fiscal Year	Project Number	Project Title	Funding Amount	Current Project End Date	Requested Project End Date
2020	20-31-040	Aerial Imagery (2 years)	\$ 750,000	6/30/2021	N/A
2019	19-52-120	NJ Regional Sidewalk Inventory	100,000	6/30/2020	6/30/2021
2019	19-62-000	New Jersey Local Concept Development (3 years)	1,500,000	6/30/2021	N/A
2018	18-62-000	NJ Local Concept Development	430,000	6/30/2020	6/30/2021
2018	18-64-000	NJ Regional Signal Retiming Initiative	350,000	6/30/2020	6/30/2021
2017	17-62-000	NJ Local Concept Development	430,000	6/30/2020	6/30/2021
2016	16-62-100	NJ Pavement Management	2,000,000	6/30/2020	6/30/2021

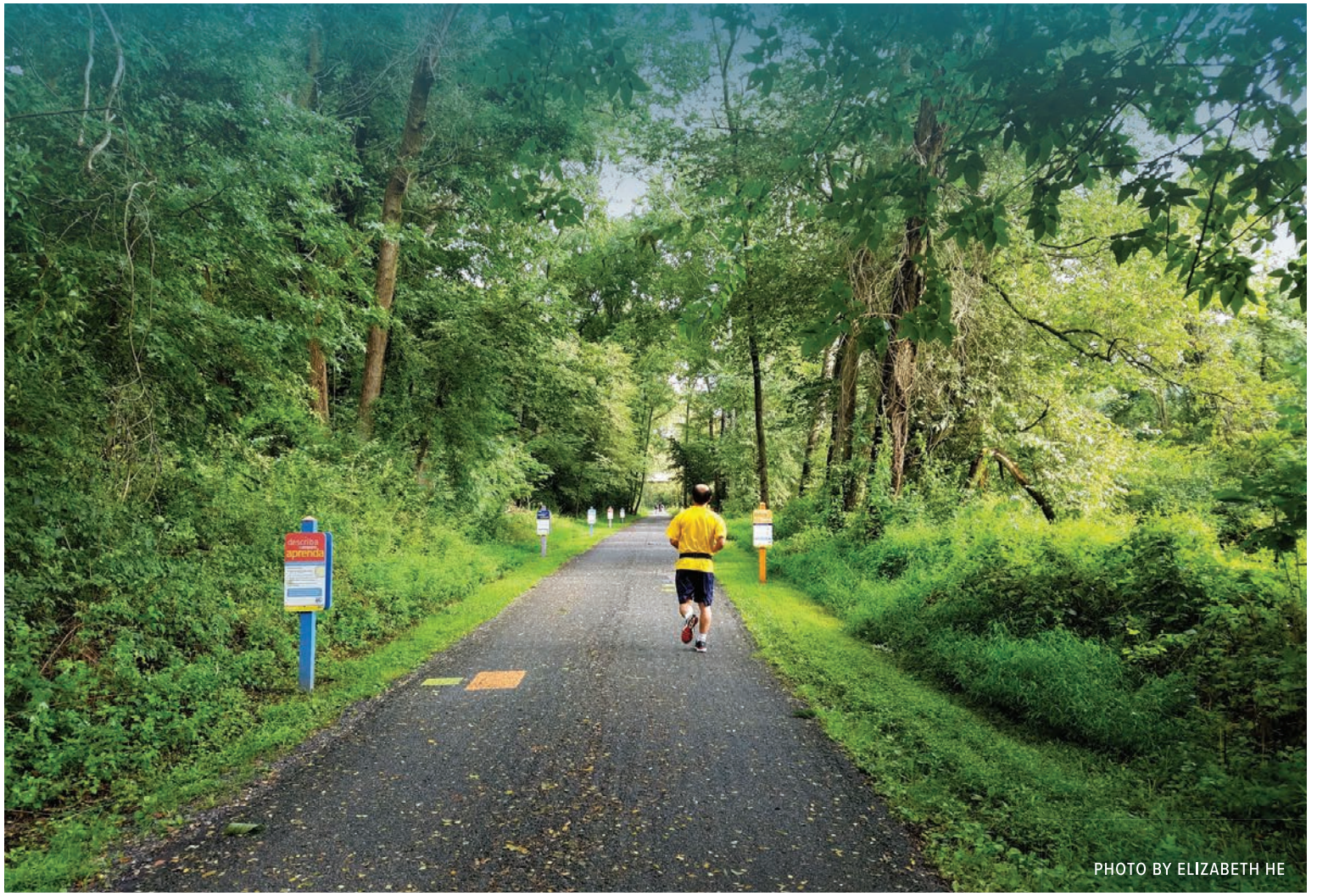


PHOTO BY ELIZABETH HE

APPENDIX

Acronyms

JUNE 2020

Acronyms

Commonly Used Terms in DVRPC's Regional Planning Process

AADB – Annual Average Daily Bicycles

AADP - Annual Average Daily
Pedestrians

AADT - Annual Average Daily Traffic

AASHTO – American Association of
State Highway and Transportation
Officials

AB Model – Activity-Based Model

ACS – American Community Survey

ACT - American Communities Survey

ADA – Americans with Disabilities Act

APTA – American Public
Transportation Association

AQA – Air Quality Action

AQP – Air Quality Partnership

ATR – Automatic Traffic Recorder

AV – Autonomous Vehicle

AWDT – Average Weekday Daily
Traffic

BCTMA – Bucks County
Transportation Management
Association

BID – Business Improvement District

BRT – Bus Rapid Transit

CAAA – Clean Air Act Amendments

CAC – Clean Air Council

CBD – Central Business District

CBNR – Comprehensive Bus Network Redesign

CCCTMA - Cross County Connection
Transportation Management Association

CD – Concept Development

CDC – Community Development Corporation

CEDS – Comprehensive Economic Development
Strategy

CHSTP – Comprehensive Human Services
Transportation Plan

CJTF – Central Jersey Transportation Forum

CMAQ – Congestion Mitigation and Air Quality
Improvement Program

CMP – Congestion Management Process

CPTMA – Central Philadelphia Transportation
Management Association

CR – County Route

CTPP – Census Transportation Planning Package

CZAC – Coastal Zone Advisory Committee

CZM – Coastal Zone Management

DCA – Department of Community Affairs

DCTMA – Delaware County
Transportation Management
Association

DECZ – Delaware Estuary Coastal
Zone

DEP – Department of Environmental
Protection

DOT – Department of Transportation

DRPA – Delaware River Port
Authority

DRWI – Delaware River Watershed
Initiative

DVGMTF – Delaware Valley Goods
Movement Task Force

ECG – East Coast Greenway

EDD – Economic Development
District

EJ – Environmental Justice

ERH – Emergency Ride Home

ETA – Equity through Access

FAA – Federal Aviation
Administration

FAST Act – Fixing America’s Surface
Transportation Act

FASTLANE - Fostering Advancements
in Shipping and Transportation for
the Long-term Achievement of
National Efficiencies

FEMA – Federal Emergency Management Agency

FHWA – Federal Highway Administration

FTA - Federal Transit Administration

GHG – Greenhouse Gas

GIS – Geographic Information Systems

GMTMA – Greater Mercer Transportation
Management Association

GVFTMA – Greater Valley Forge Transportation
Management Association

HAV – Highly Autonomous Vehicle

HCTF – Healthy Communities Task Force

HDV – Heavy-duty Diesel Vehicle

HOV – High Occupancy Vehicle

HPMS – Highway Performance Monitoring
System

HSIP – Highway Safety Improvement Program

HSM – Highway Safety Manual

HUD – US Department of Housing and Urban
Development

ICG – Interagency Consultation Group

ICM – Integrated Corridor Management

IDRuM – Interactive Detour Route Mapping

IMTF – Incident Management Task Force

IPD – Indicators of Potential Disadvantage

IREG – Information Resources Exchange Group

ITE – Institute of Transportation Engineers

ITS – Intelligent Transportation Systems

JARC – Job Access Reverse Commute

LCD – Local Concept Development

LED – Light Emitting Diode

LEED – Leadership in Energy and Environmental Design

LEP – Limited English Proficiency

LOS – Level of Service

LRP – Long-Range Plan

LTAP – Local Technical Assistance Program

MAP – Mobility Alternatives Program

MAP-21 – Moving Ahead for Progress in the 21st Century

MIRE – Model Inventory of Roadway Elements

MIT – Municipal Implementation Tools

MOVES – Motor Vehicles Emissions Simulator

MPMP – Multimodal Project Management System

MPO – Metropolitan Planning Organization

NAAQS – National Ambient Air Quality Standards

NACTO – National Association of City Transportation Officials

NAICS – North American Industry Classification System

NEPA – National Environmental Protection Act

NETS – National Establishment Time Series

NHS – National Highway System

NHSL – Norristown High Speed Line

NJ BPAC – NJ Bicycle and Pedestrian Advisory Council

NJBPU – New Jersey Board of Public Utilities

NJCRC – New Jersey Coastal Resilience Collaborative

NJ DCA – NJ Department of Community Affairs

NJ DEP – NJ Department of Environmental Protection

NJ DOT – NJ Department of Transportation

NJ OPA – NJ Office for Planning Advocacy

NJ SAFR – NJ Southern Area First Responders

NJT – New Jersey Transit

NJTA – NJ Turnpike Authority

NJTPA – North Jersey Transportation Planning Authority

OMB – Office of Management and Budget

oTIS – Philadelphia Managing Director's office of Transportation and Infrastructure Sustainability

PA DCED – PA Department of Community and Economic Development

PA DCNR – Pennsylvania Department of Conservation and Natural Resources

PA DEP – PA Department of Environmental Protection

PART – Pottstown Area Rapid Transit

PA SDC – PA State Data Center

PATCO – Port Authority Transit Corporation

PennDOT – PA Department of Transportation

PM 2.5 – Particulate Matter 2.5 microns

PMC – Program Management Committee

PMRPC – Pottstown Metropolitan Regional Planning Commission

POA – Point of Access

PPA – Preliminary Preferred Alternative

PPAC – Pedalcycle and Pedestrian Advisory Committee

PPTA – PA Public Transportation Association

PPTF – Public Participation Task Force

PSATS – PA State Association of Township Supervisors

PTC – PA Turnpike Commission

PTMA – Partnership Transportation Management Association

PWP – Planning Work Program

RAC – Regional Aviation Committee

RASP – Regional Aviation System Plan

RCEDF – Regional Community and Economic Development Forum

RCRS – Road Condition Reporting System

RideECO – Ride Easy Commute Options

RIMIS – Regional Integrated Multimodal Information Sharing

ROW – Right-of-Way

RPO – Rural Planning Organization

RSLPP – Regional Streetlight Procurement Program

RSTF – Regional Safety Task Force

RTAC – Regional Transit Advisory Committee

RTC – Regional Technical Committee

RTSAP – Regional Transportation Safety Analysis and Plan

SAR – Share-a-Ride

SDRP – State Development and Redevelopment Plan

SEPTA – Southeastern Pennsylvania Transportation Authority

SHSP – Strategic Highway Safety Plan

SIP – State Implementation Plan

SJCATF – Sustainable Jersey Climate Adaptation Task Force

SJTA – South Jersey Transportation Authority

SJTPO – South Jersey Transportation Planning Organization

SME – Subject Matter Experts

SOS – Strategies for Older Suburbs

SOV – Single Occupant Vehicle

SRHPP – Supportive Regional Highway Planning Program

SRTS – Safe Routes to School

SRTT – Safe Routes to Transit

STIP - State Transportation Improvement Program

STOPS – Simplified Trips-On-Projects Software

STP – Surface Transportation Program

STU – STP Funds Allocated to Urban Areas

SVC – Stored Value Card

TAMP – Transportation Asset Management Plan

TAP – Transportation Alternatives Program

TCDI – Transportation and Community Development Initiative

TCRP – Transit Cooperative Research Program

TDM – Transportation Demand Management

TDM – Travel Demand Model

TE – Transportation Enhancements

TIM2 – Travel Improvement Model Version 2

TIM3 – Travel Improvement Model Version 3

TIP – Transportation Improvement Plan

TMA – Transportation Management Association

TMACC - Transportation Management Association of Chester County

TMP – Traffic Management Plan

TOD – Transit Oriented Development

TOTF – Transportation Operations Task Force

TPM – Transportation Performance Measures

TPM – Transportation Performance Management

TRID – Transit Revitalization Investment District

TRB – Transportation Research Board

TSM – Transportation Systems Management

TSMO – Transportation Systems
Management and Operations

TSP – Transit Support Program

TSP – Transit Signal Priority

UPWP – Unified Planning Work
Program

US DOT – US Department of
Transportation

US EDA – US Economic Development
Administration

US EPA – US Environmental
Protection Agency

UWAG – Urban Waterfront Action
Group

VOC – Volatile Organic Compound

VMT – Vehicle Miles Traveled

Fiscal Year 2021 Unified Planning Work Program

Publication Number: 21002

Date Published: March 2020

Geographic Area Covered:

The nine county Delaware Valley Regional Planning Commission region including Bucks County, Chester County, Delaware County, Montgomery County, City of Philadelphia, Burlington County, Camden County, Gloucester County, and Mercer County.

Key Words:

Unified Planning Work Program

Abstract:

This document contains all of the projects and related funding for FY 2021 as passed by the DVRPC Board in January 2020.

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